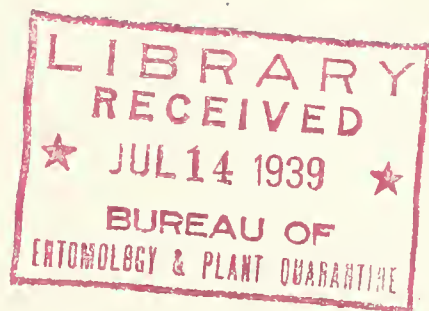


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THE INSECT PEST SURVEY
BULLETIN



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THE MORE IMPORTANT RECORDS FOR JUNE

Grasshoppers are rapidly reaching maturity over the entire infested area, except in central and northern North Dakota, where development has been somewhat delayed. A few heavy flights are occurring in Montana, although weather conditions at the end of the month were forcing the hoppers to the ground. Small local flights are occurring in the Red River Valley section of Minnesota, limited parts of western North Dakota, South Dakota, eastern Montana, Nebraska, Kansas, and Wyoming.

Adults of the Japanese beetle began to appear the first week of the month along the Atlantic seaboard from New Jersey to Norfolk, Va., and by the end of the month were very abundant.

The rose chafer is destructively abundant from Massachusetts westward to Indiana and Tennessee. Fruit and also flowers of all kinds have been injured considerably.

Blister beetles are very abundant in the Great Plains region from North Dakota to Texas, and also reported in Virginia, Indiana, Tennessee, and Mississippi.

Rather high infestation of the hessian fly in some early sown fields in northwestern Ohio and northeastern Indiana; infestation is under 10 percent in southern and central Ohio. Infestation is generally light and scattered in southwestern Missouri. Some commercial damage has occurred in the southeastern corner of Nebraska. In Kansas the infestations over most of the central and southern parts of the State average under 10 percent, and a few widely separated fields are highly infested.

Rains in Indiana and Illinois have greatly reduced the chinch bug infestations; however, in western Indiana some trouble is anticipated. In southern Iowa the insect is so abundant that serious damage is anticipated. It is quite destructive in north-central and northwestern Missouri, in southeastern Nebraska, and northeastern Kansas, and unusually numerous in south-central and southwestern Oklahoma.

The bugs are migrating from small grains to corn. Some cornfields in Oklahoma are being severely damaged.

A few reports of scattered local infestations of the armyworm were received from the Northeastern States and also from southeastern Missouri.

Codling moth larval entrances were first observed in the lower Hudson River Valley the first week in June and in the Lake region a week later. In the East Central States entrances were noted the first week in June in central Ohio, and in southern Indiana mature larvae were leaving the apples by June 8.

Fruit aphids are causing considerable injury in the Northeastern and East Central States.

The plum curculio is unusually abundant along the eastern coast from Massachusetts to Georgia, and also in the central part of the country from Indiana to Missouri.

The corn ear worm is causing the usual amount of injury to corn and tomato in the Southern States and more than usual damage in Missouri. Larvae are present in southern Illinois and eggs as far north as Urbana. Moths were beginning to appear on Long Island, N. Y., the last week of June.

An outbreak of the grape colaspis (Colaspis brunnea F.) is occurring in corn in the East Central States from Ohio and Kentucky westward through Missouri. In most instances the corn had followed sod where legumes had been turned under.

The grass thrips caused considerable injury to sweet corn in southeastern New York.

Flea beetles are active later than usual, injuring many kinds of vegetables.

The Mexican bean beetle is abundant as far north as Connecticut, New York, and northern Indiana.

The striped cucumber beetle is damaging squash and melons, as usual in the eastern half of the country.

The asparagus beetle seems to be causing more injury than usual along the Atlantic seaboard from Connecticut southward to South Carolina. It was also reported from Michigan and Washington.

The tobacco splitworm is showing up again in tobacco in Gadsden County, Fla.

In many sections of the Cotton Belt there has been plenty of rainfall during June and conditions have been very favorable for the rapid increase of the boll weevil. The present prospects are for as much damage this year as there was last year.

The forest tent caterpillar is still present in outbreak numbers in the Northern States, from Vermont and Connecticut to Pennsylvania, and from North Dakota to Washington.

THE MORE IMPORTANT ENTOMOLOGICAL FEATURES IN CANADA FOR MAY-JUNE

In the Prairie Provinces hatching of grasshoppers began the first week of May; was well under way by the middle of the month, and was practically complete by the first of June. The young grasshoppers caused some crop losses in certain areas, but their activities and development were being retarded by cool weather and timely rains, and an extensive poisoning campaign was producing good results. In the interior of British Columbia heavy June rains greatly retarded insect activity and, although grasshoppers were numerous in some areas, they were backward in development.

Infestations of the pale western cutworm were reported to be widespread in Saskatchewan, but up to mid-June little damage had been done where timely rainfall had brought about crop recovery, and elsewhere losses were relatively light.

A severe outbreak of the red-backed cutworm developed in the Peace River district of Alberta, from the Grande Prairie and Spirit River districts west to near the interprovincial boundary. An estimated loss of 20 percent of grain crops had already occurred by June 16. In other parts of the Peace River areas of Alberta and British Columbia the infestation was lighter and more scattered. Severe infestations were noted in several districts around Edmonton.

Serious damage to grain crops by wireworms was reported widespread in the three Prairie Provinces. In Manitoba an average of 25 percent damage on summer fallow wheatfields was recorded in the Coulter-Waskada district. In Saskatchewan the damage to wheat seeded on fallow was estimated at 20 percent for the Saskatoon to Dafoe area.

and 10-15 percent for the Dafoe-Buchanan district. The Peace River district of Alberta was also affected, and crop losses occurred locally in southwestern Ontario and the interior of British Columbia.

Reports of injury to vegetable crops by flea beetles have been received from Quebec, Manitoba, Saskatchewan, and British Columbia. The species Phyllotreta albionica Lec. destroyed many young cruciferous plants on Vancouver Island and on the mainland of British Columbia.

Heavy flights of the rose chafer occurred locally in light sandy areas in southern Ontario. Damage to crops was expected to be negligible.

The sweetclover weevil (Sitona cylindricollis F.) has been found to be widely distributed in Manitoba and has caused severe damage to sweetclover in many localities. It had not been previously recorded west of the Georgian Bay region of Ontario.

Moderate flights of the beet webworm during the latter part of May and early in June were reported from several localities in Manitoba and Saskatchewan. A fairly general flight occurred over most of southern Alberta.

Untreated cabbage plants in southwestern Ontario have suffered severely from attacks of the cabbage maggot.

The apple grain aphid was unusually abundant in apple orchards of Nova Scotia and southern Ontario, and the rosy apple aphid also appeared in injurious numbers in some sections of these two regions. However, apparently neither species proved to be a serious pest.

Injury to fruit buds by the tarnished plant bug was prevalent this spring in orchards of the Okanagan Valley, British Columbia.

The oriental fruit moth infestation on peach in the Niagara district, Ontario, is reported as low.

GENERAL FEEDERS

GRASSHOPPERS (Acrididae)

General. W. E. Dove (June 3): First adults of migratory grasshopper Melanoplus mexicanus Sauss. reported late last week from western South Dakota, Nebraska, and eastern Wyoming. Principal infestations of migratory range grasshopper (Dissosteira longipennis Thos.) local in the Panhandles of Oklahoma and Texas, and in northeastern New Mexico, eastern Colorado, and southwestern Kansas, where extremely heavy numbers hatched this spring. Other areas of these States rather lightly infested, with the exception of Colorado, where severe infestations of crop lands occur. Hatching throughout this area practically complete. (June 12): Adults of M. mexicanus becoming common in the northwestern Great Plains States. Good control being obtained. Heavy infestations remain in brushy river bottoms and bad lands, where control operations are difficult. In the Southwestern States approximately 10 percent of D. longipennis have reached the adult stage in the southern part of the infested area of New Mexico, and about 5 percent in Texas. (June 20): Adults of M. mexicanus appearing in considerable numbers throughout most of the infested area of the northwestern Great Plains States, except in central and eastern North Dakota, where hatch is not complete and development somewhat behind that of the rest of the area. Percentage of adults about 75 percent in Colorado and southwestern Kansas; from 20 to 50 percent in Nebraska; from 20 to 40 percent in South Dakota; about 10 percent in eastern Montana, with the greater number rapidly becoming adults; less than 10 percent in western North Dakota; and about 5 percent in the Red River Valley of Minnesota. Mating observed in all infested States south of and including Wyoming and South Dakota. Heavy flight of M. mexicanus reported in Baca County, Colo., where adults from the north flow into crops. Small local flights observed in Kansas and Nebraska. Observed in flight high in the air in an area 20 miles north of Miles City, Mont. Flights in this area apparently inevitable, as there is an infestation of 4,225 square miles extending from 16 miles north of Miles City northward to the Musselshell River. Entire district uniformly infested at rate of 50 per square yard. All green vegetation gone in many places and sage brush 50-percent destroyed. No noticeable effect by rain in reducing populations in the northwestern Great Plains States. Hoppers apparently in a weakened condition in some localities, but very few dead nymphs found. Flesh fly parasites Sarcophaga kellyi Ald. appeared about 3 weeks earlier this year. Parasitization reported as 10 percent in southwestern North Dakota, and in three southeastern Nebraska counties, with some spotted activity in eastern Montana. D. longipennis in the Southwestern States is rapidly reaching the adult stage in the southern parts of the infested area. About 80 percent are adults in the southern part of the infested counties of northwestern New Mexico, about 25 percent in the southern counties of the Texas Panhandle, and from 2 to 5 percent in the more northern parts of the Texas Panhandle, Colorado, and the Oklahoma Panhandle.

(June 27): Possible flight threats from M. mexicanus recently reported in Montana not extensive, as weather conditions have forced the hoppers to the ground. Most of remaining populations now reaching the adult stage and flight anticipated if weather conditions are favorable. Very serious problem found in northern Custer, Roosevelt, western Prairie, and southern Garfield Counties, Mont., as crops and range in that area have been almost completely destroyed and minor flights are originating in some sections. High populations of M. mexicanus and D. longipennis recently observed south of the Missouri River in South Dakota. Control operations started.

Indiana. J. J. Davis (June 21): Young grasshoppers observed as abundant in clover and waste land. Expected to be abundant in some parts of the State but perhaps not a severe general outbreak. Reported on June 11 as damaging flowers in Howard County.

Illinois. W. P. Flint (June 20): Reduced by heavy rains, which have favored growth of vegetation, further tending to lessen damage.

Minnesota. A. G. Ruggles and assistants (June 19): Infestations scattered over the State; more in the western counties than in the eastern. Heavily infested counties as follows: Anoka, Becker, Beltrami, Carlton, Clay, Dakota, east Otter Tail, Kittson, Koochiching, Lac qui Parle, Morrison, Mahanomen, Pine, Pipestone, Red Lake, Rock, Wadena, Wilkin, and Yellow Medicine. Chortophaga viridifasciata Deg. reported from McIntosh on May 5, when third-instar nymphs moderately abundant. Reported from Anoka on May 15, where the pink form was moderately abundant. Two-striped grasshopper, M. bivittatus Say, very abundant at Hallock, Kittson County, on June 14.

Iowa. H. E. Jaques (June): Heavy infestation throughout western Iowa, becoming lighter in the central counties. Scattered light infestations in extreme southeastern Iowa.

Missouri. L. Haseman (June 24): Adults of M. bivittatus began appearing in central and northern Missouri around the middle of June. M. mexicanus ready to oviposit in central Missouri. M. differentialis Thos. still immature and less abundant than the other two species. Heaviest infestation again centers in a dozen north-central counties.

North Dakota. J. A. Munro (June 22): Unusually heavy infestations, with M. mexicanus predominating, observed in brush or wooded areas along rivers and streams. Control difficult. Control work going on mainly in the Red River Valley and western counties, where infestations are most serious.

South Dakota. H. C. Severin (June 5): M. confusus Scudd. has increased in abundance during the last few years until it has become very injurious all over the State.

Nebraska. O. S. Bare (June 20): Infestations in the State extremely variable. Heaviest in western Nebraska in many years, but a number of counties in the southeastern quarter of the State lightly infested. Infestations throughout the rest of the State spotted, often being extremely heavy in one locality, while in localities but a few miles away only a few can be found. Infestations generally average; no heavier than those of 1936, 1937, and 1938. Control work procuring good results. Rather severe damage in some counties but on the whole damage less than in 1937 and 1938.

M. H. Swenk (June 20): Phenomenally heavy flights of Pardalophora haldemanii Scudd. in Redwillow County between McCook and Indianola on the night of June 6, and in southeastern Custer, Sherman, and Howard Counties on the night of June 16. Reports on flight of June 6 indicate it as very heavy.

Oklahoma. C. F. Stiles (June 21): D. longipennis and M. mexicanus the most prevalent grasshoppers throughout the Oklahoma Panhandle are appearing in larger numbers than anticipated from the egg survey. Being brought under control in most areas. Problem not serious in the rest of the State, with the exception of Stephens and Jefferson Counties, where M. bivittatus and M. differentialis are quite numerous and damaging cotton.

Washington. D. D. Jackson (June 6): In the Spokane Valley, around Opportunity, hoppers were hatching in great numbers in alfalfa. On May 26 they were in the first through the fourth instars.

L. G. Smith (June 6): Camula pellucida Scudd. in the first to third instars observed 2 miles southwest of Pullman on June 2, congregated in their hatching beds and numbering from 800 to 1,000 per square yard, spotting an area of 5 acres.

MORMON CRICKET (Anabrus simplex Hald.)

North Dakota. J. A. Munro (June 22): Light infestations reported in western Cass and La Moure Counties. No reports of crop damage.

Wyoming. Twin Falls Daily News (May 14): The mile-long tin and wood fence with which residents of Sundance, Crook County, northeastern Wyoming, have fought millions of Mormon crickets for 2 years, being prepared to repulse what may be an even more severe attack this year.

Idaho. Boise Statesman (May 14): Crickets invading the area of Boise. (May 18): Madison County fighting off an invasion for the first time in 20 years. Fremont County to the north, long infested, launching extensive control operations.

Nevada. E. Records (June 3): Mormon cricket eggs collected near Winnemucca submitted for examination on April 19. Unexamined eggs set aside in moist sand, and on May 8 an insect was noted in the dish with the eggs. (Det. by C. F. W. Muesebeck.)

Oregon. Salt Lake Tribune (May 14): Now infesting six townships in eastern part of Baker County. Swarming off forest reserve and public domain on 35,000 acres of rich crop land in Pine and Eagle Valleys.

California. S. Lockwood (June 19): A very scattered infestation occurred in Lassen County, Calif., 18 or 19 miles northwest of Reno, Nev., on the California-Nevada line. Infestations consist, so far as known, of very widely scattered individuals, difficult to find in the vegetation of the area. Infested area, so far as determined at a survey, not more than 5 square miles, and, in many places in that area, crickets found only occasionally. In no instance found in numbers.

WHITE GRUBS (Phyllophaga spp.)

Massachusetts. W. B. Becker (June 27): Adults partially defoliated an ash tree near a street light during the nights late in May.

Oklahoma. F. A. Fenton (June 20): Adults of the wheat white grub P. lanceolata Say, reported as damaging cotton near Walters, Cotton County, and as defoliating shelterbelt trees, chiefly elms, near Watonga, Blaine County, and in a nursery in Oklahoma City, Oklahoma County.

JAPANESE BEETLE (Popillia japonica Newm.).

Connecticut. J. P. Johnson (June): Reports of damage, and increase of requests for information on control in lawns, indicate that damage caused by the grubs is increasing yearly. Most of the reports from southwestern Connecticut.

New Jersey. E. Kostal (June 16): First beetle found today at Morganville, Monmouth County.

Pennsylvania. T. L. Guyton (June 6): Larvae found in lawn grass at Hudson, near Wilkes-Barre, in an abundance of 15 to 20 per square foot.

Delaware. L. A. Stearns (June): Adults first observed week beginning June 19 at Newark.

Maryland. E. N. Cory (June 24): First beetles taken at Collogo Park on June 12. Early reports, unaccompanied by specimens, received from Eastern Shore. Four beetles taken from a potato field near Pocomoke on June 16.

H. L. Dozier (June 12): Beetles issued in abundance on June 11 at Cambridge, following first heavy rain in weeks.

H. C. Donohoe (June 21): A single beetle found on June 6 near Princess Anne. Date doubtless marks the approximate start of beetle emergence in this locality since the first beetle in 1938 was found on June 5 in the same spot.

Virginia. H. G. Walker and L. D. Anderson (June 26): Apparently much more abundant at Norfolk and in the two counties on the Eastern Shore than ever before. At Norfolk 117 beetles were collected in 24 traps, as compared with 35 for the same period last year.

H. C. Donohoe (June 21): Beetles out in small numbers at Cape Charles on June 7 and reported observed by residents for about 1 week before that. By June 20 the infestation in the Cape Charles area was severe, with much damage to grapes and ornamental shrubbery.

ORIENTAL BEETLE (Anomala orientalis Wtrh.)

Connecticut. J. P. Johnson (June): Grubs have damaged many lawns this spring at New Haven and West Haven. Withdrought throughout May, combined with grub injury, lawns were severely damaged. Recorded as more prevalent in West Haven and in new sections of New Haven.

ASIATIC GARDEN BEETLE (Autoserica castanea Arrow)

Connecticut. J. P. Johnson (June): Numerous reports of injury to turf lawns received from New Haven throughout May and June.

New York. N. Y. State Coll. Agr. News Letter (June 5): Light flight of beetles on June 3 in Nassau County, eastern New York.

Pennsylvania. C. H. Hadley (May): In surveys made on May 29 at Jenkintown found quite generally distributed. Of individuals recovered approximately 24 percent in the prepupal stage, with the rest in third instar.

District of Columbia. Mary B. Cox (June 21): Specimens found in ground near surface, and on surface of lawn in northwestern section of Washington. (Det. by E. A. Chapin.)

ROSE CHAFER (Macrodactylus subspinosus F.)

Connecticut. M. P. Zappe (June 19): Adults very abundant in New Haven and Middlesex Counties. Injuring young peaches and Siberian elms severely, also injuring grape blossoms.

Massachusetts. A. I. Bourne (June 26): First noted on June 13, when they were found feeding on corn. Reported since then as abundant throughout the State, and besides damage to the usual plants, such as roses and grapes, reported as feeding on foliage of fruit trees.

New York. N. Y. State Coll. Agr. News Letter (June): Observed in great abundance in both eastern and western New York the middle of June, causing considerable injury by attacking peach, apple, pear, cherry, grape, and other trees and shrubs.

R. E. Horscy (June 17): Reported as common on roses in sandy soil. Observed on peony blossoms at Rochester from June 10 to 17.

- Maryland. E. N. Cory (June 24): Observed in usual abundance on flowers.
- Ohio. T. H. Parks (June 21): Injurious on fruit trees and flowers near Toledo.
- Indiana. J. J. Davis (June 21): Very abundant in parts of northern Indiana, attacking rose, peony, iris, and other flowers, also foliage of fruit trees and Chinese elm. First reports received on June 5.
- Tennessee. G. M. Bentley (June 20): Noticed in unusual numbers on May 26 on apples at McMinnville, Warren County.

WIREWORMS (Elateridae)

- Maine. J. Hawkins (June 14): Both adults and larvae of the wheat wireworm (Agriotes nancus Say) present in a field where potatoes were grown last year at Benedicta. Oats and wheat not seriously affected but seed pieces of potato planted in infested soil were injured.
- Delaware. L. A. Stearns (June 20): Several acres of corn on bottom land along a creek between Greenboro and Selbyville destroyed.
- Kentucky. W. A. Price (June 23): Approximately 50 percent of the tobacco in the vicinity of Lexington injured. Most common species was Acolus dorsalis Say. A small percentage of injury caused by larvae of Monocrepidius auritus Hbst.
- North Dakota. J. A. Munro (June 22): Prairie grain wireworms, Ludius acreipennis Kby., ranged from slightly over 2 per seed piece to few or none in potato fields along the edge of the Red River Valley area, from Edinburg to Walhalla. In one field near Walhalla Melanotus spp. predominated, with larvae present in about one-third of the potato seed pieces.
- Arizona. O. L. Barnes (June 13): Present and causing some damage to young corn plants near Flagstaff on June 7-8.
- California. M. W. Stone (June 19): A 10-acre field of tomatoes near Buena Park so damaged by Limonius californicus Mann. that over 19 percent of original stand was replanted and replants also being damaged at time of examination. Counts made in 12 hills of potatoes in a 15-acre field near Artesia showed over 50 percent of the tubers with 1 or more worm holes.

BLISTER BEETLES (Meloidae)

- Virginia. A. M. Woodside (June 17): Gardens in Augusta County damaged severely by a blister beetle.
- Indiana. J. J. Davis (June 21): Macrobasis unicolor Kby. reported as defoliating alfalfa in Greene County on June 15.

Tennessee. G. M. Bentley (June 20): Striped blister beetle (Epicauta marginata F.) reported as destroying tomato plants at Memphis, Shelby County.

Mississippi. C. Lyle (June 24): Adults of Epicauta lemniscata F. received from Quitman County on June 8; reported as feeding on alfalfa. Blister beetle injury to tomatoes reported from Oktibbeha County.

Texas. R. K. Fletcher (June 22): E. lemniscata reported in Washington County on May 23 on "cow beets."

North Dakota. J. A. Munro (June 22): Very abundant and injurious to caragana and other legumes. On June 17 at Mandan caragana, honeylocust, and lilac defoliated by beetles. Also causing serious damage at Enderlin, Oakes, and Fargo.

South Dakota. H. C. Severin (June 5): A number of different species doing much damage to caragana, garden plants, sweet clover, and alfalfa over practically the entire State.

Nebraska. M. H. Swenk (June 20): Segmented blister beetle (Macrobasis segmentata Say) found damaging potato plants in Butler County on June 17. One-colored blister beetle (M. unicolor) found attacking garden crops in Furnas County on May 26.

D. B. Whelan (June 20): M. unicolor, E. maculata Say, and E. ferruginea Say, in the order named, numerous in alfalfa fields in eastern Nebraska during June.

Arizona. W. A. Stevenson (June 17): Very heavy population noted in two fields of alfalfa at Sahuarita, Pima County.

Utah. G. F. Knowlton (June 13): On June 3 ashy-gray blister beetles very abundant on and seriously damaging alfalfa at Emery, Emery County, southeast of central Utah. Also abundant on alfalfa at Nibloy and Corinne, Box Elder County. Found damaging alfalfa and beets in some fields in Utah County.

CURWORMS (Noctuidae)

Georgia. P. M. Gilmer, P. A. Glick, and R. T. Harwell (June 3): Climbing cutworms very prevalent in all fields in Dooly, Berrien, Tift, Cook, Lowndes, and Echols Counties, causing serious loss of stand on cotton and peanuts, especially on fields planted last season in crops having rank growth.

P. M. Gilmer (June 12): Damage in isolated cases very severe, and, throughout the southern section, much more severe than usual. Some cotton fields reduced in stand fully 15 to 25 percent, and one Sea Island field near Alapaha has lost fully 40 percent. Very serious damage on peanuts reported a number of times, and in one case so severe only about 12 plants were left standing on about 5 acres of a 12-acre field. Practically every stub plant in the

peanut field showed from 3 to 8 large larvae at the roots.

Nebraska. M. H. Swenk (June 20): Complaint received of annoyance by moths Chorizagrotis auxiliaris Grote around windows of a house in Sheridan County on June 15.

Arizona. O. L. Barnes (June 13): While making a grasshopper survey about 10 miles northeast of Flagstaff, on June 7-8 cutworms were damaging young corn in all fields examined. It was estimated that in one 20-acre field 40 percent of the plants were destroyed, and intermediate and late-instar larvae continued to feed on remaining plants. Damage almost 100 percent in strips several yards wide, adjacent to field margins and small grains. Damage beginning in fields of pinto beans examined both in this area and in nearby Doney Park. Also causing injury in some vegetable gardens. In fields where bean plants had reached a height of 2 or more inches damage was 5 to 10 percent. (Larval specimens determined as probably Euxoa sp. by C. Heinrich.)

Utah. G. F. Knowlton and F. C. Harmston (May 31): Causing serious injury to crops at Callao, Juab County.

Washington. A. E. Lovett (June 6): Porosagrotis sp. ostensibly damaging strawberries at Bellevue and Kirkland, King County, on May 31. In many instances from three to five worms reported as found at one hill. (Det. by C. Heinrich.)

BEET WEBWORM (Loxostege sticticalis L.)

Nebraska. M. H. Swenk (June 20): Moths were flying in great abundance during the first week in June in western Nebraska. Particularly numerous in southern Garden and Deuel Counties; also very plentiful in Cheyenne, Morrill, Scotts Bluff, Box Butte, Keith, and Lincoln Counties. First reports of webworms from Box Butte County on June 12 and from Antelope County on June 15.

Utah. G. F. Knowlton (June 15): Larvae are damaging many fields of beets and in some fields are attacking alfalfa and peas in Utah and Davis Counties. Serious injury in some fields. Larvae leaving weeds are injuring various crops and plants.

WHITE-LINED SPHINX (Sphinx lineata F.)

Utah. G. F. Knowlton and F. C. Harmston (June 8): Larvae of two-lined sphinx abundant on range land near farms north of Brigham City, Box Elder County.

G. F. Knowlton (June 15): Larvae damaging grape foliage at Pleasant View, northern Utah.

WEBWORMS (Crambus spp.)

Pennsylvania. H. E. Hodgkiss (June 22): A few adults of sod webworms observed on May 25; most ready to pupate. Some continue to feed in turf in southeastern counties. Infestation on field corn in Perry County moderate; larvae of various sizes. On June 22 larvae were causing severe damage in Centre County.

Delaware. L. A. Stearns (June): Serious damage to corn investigated in the vicinity of Smyrna during the week beginning June 5. Injury sufficient to necessitate replanting.

SPITTLEBUGS (Cercopidae)

New York. N. Y. State Coll. Agr. News Letter (June 19): Numerous in celery and found feeding on set onions in Orange County, eastern New York. (June 26): Adults observed as having migrated in large numbers from a hayfield to corn in Ulster County, eastern New York. In Oswego and Jefferson Counties, western New York, adults observed in numbers on alfalfa during the last week. Now in the adult stage.

Pennsylvania. H. E. Hodgkiss (June 22): Abundant throughout the State on June 15; adults numerous on June 19.

Delaware. L. A. Stearns (June): Generally abundant early in June throughout Newcastle County on clover, alfalfa, and various weeds.

West Virginia. L. M. Peairs (June 2): Several reports of damage to clover and alfalfa by Philaenus leucophthalmus L. Specimens sent from Green Spring. (Det. by P. W. Oman.)

Tennessee. G. M. Bentley (June 20): More reports received and specimens noted than ever before. Reported from different parts of the State on various small-leaved evergreens. No injury observed.

Maryland. E. N. Cory (June 13): A very general infestation of Aphrophora parallela Say on clover and alfalfa.

CEREAL AND FORAGE - CROP INSECTS

WHEAT AND OTHER SMALL GRAINS

HESSIAN FLY (Phytophaga destructor Say)

Ohio. T. H. Parks (June 21): Rather high infestations now present in some early sown fields of the northwestern part of the State. Wheat-insect survey, now under way, shows infestations less than 10 percent in southern and central counties.

Indiana. C. Benton (June 19): Pupation of spring brood practically completed near La Fayette by June 12. Several rather heavily infested fields observed or reported from Tippecanoe and adjacent counties. Several damaged fields reported from the heavily infested area of northeastern part of the State. Infestation due to rather general early seeding of wheat during the last 2 years, in order to escape black stem rust infestation, which severely injured late-sown wheat in 1937.

J. J. Davis (June 21): Apparently unusually abundant and destructive in northeastern Indiana.

Iowa. H. E. Jaques (June): Infestation in southeastern section of Louisa County.

Missouri. E. T. Jones (June 12): Appears to be generally light and scattered in southwest. Some second-spring-generation larvae present on young wheat at Springfield, but not very abundant.

Nebraska. M. H. Swenk (June 20): Has done commercial damage to wheat in some localities along the southern border of the State west to Jefferson County, and along the Missouri River north to Burt County, owing mostly to an increase in very late-sown wheat by the supplementary fall brood of 1938, carried still farther by the 1939 spring brood. A field in Burt County on June 14 showed an average of 0.83 puparium per stem, including both the supplementary fall brood of 1938 and the spring brood of 1939.

Kansas. E. T. Jones (June 12): Examination of spring stubble from 32 fields distributed over central and southern parts of the State show puparia of hessian fly present in most fields. Although infestations generally average under 10 percent of tillers, a few widely scattered fields show high infestations. Only occasional late fields show presence of second-spring-generation larvae.

CHINCH BUG (Blissus leucopterus Say)

Indiana. J. J. Davis (June 21): Apparently there will be more trouble than was anticipated from this pest in western Indiana, from Lake County on the north to Knox County on the south. Bugs more immature than usual, in comparison with the development of small grain.

C. Benton (June 19): First-instar nymphs first observed on May 23 in a field near La Fayette. Parts of a number of winter wheatfields and ryefields in Tippecanoe, Benton, and adjacent counties show from light to moderately severe infestations of young bugs, which may menace adjacent corn. Some reduction in numbers of young bugs by hard rains the first part of June but not enough to reduce them materially. Some bugs reached the fourth instar on June 12, most of them being in the first three instars.

Illinois. W. P. Flint (June 20): Heavy showers occurring during the first part of June have covered almost the entire State. Young chinch bugs are so reduced in numbers that no serious infestation will occur.

Iowa. W. E. Dove (June 5): Unless the situation changes a great deal within the next 2 weeks the chinch bug problem will be pretty serious in the State. Situation believed to be more serious than in 1933 but not quite as serious as in 1934. Chinch bugs have just started to hatch. Rains of the last few days have not materially changed the situation. Conditions were a little too dry for them and the drought probably affected the population more than did the rains.

H. E. Jaques (June): Practically the entire southern portion of the State infested.

Missouri. L. Haseman (June 24): Throughout the north-central and north-western parts of the State bugs are leaving wheat in destructive numbers on scattered farms. Not appearing as a general epidemic but doing much damage where abundant. Barriers used since the middle of June.

Kansas. H. R. Bryson (June 24): Giving more trouble in Kansas this year, owing to an extension of the barley-growing area in eastern Kansas. Reports of injury received from St. Marys, Onaga, Morrill, Garnett, Howard, and southeastern counties.

Nebraska. M. H. Swenk (June 20): Began their migration out of the small-grain fields on June 15, and migration still in progress. All counties concerned are in the extreme southeastern part of the State and include Richardson, Pawnee, southern Gage, Nemaha, eastern Otoe, eastern Cass, Douglas, and, less heavily, Saunders. In the Missouri River counties above mentioned, barley fields extensively destroyed by the bugs, and barriers under construction for the last few days.

Oklahoma. C. F. Stiles (June 21): Unusually numerous through the south-central part of the State this season. More barley than usual planted last season and inexperienced farmers planted corn alongside the barley. Some cornfields have suffered 50-percent damage by migrating bugs.

R. G. Dahms (June 18): Causing severe damage in many corn and sorghum fields in southwestern part of the State. Much of the sorghum in this section was planted late and in some fields plants were killed within 3 or 4 days after they came up. About 95 percent of the first-generation bugs have reached the adult stage. First eggs from first-generation bugs found on June 13.

Texas. R. K. Fletcher (June 22): Ruined a stand of sorghum at College Station, observed on June 6.

ENGLISH GRAIN APHID (Macrosiphum granarium Kby.)

Nebraska. D. B. Whelan (June 6): More numerous on wheat near Lincoln than last year, but not serious.

PACIFIC GRASS BUG (Thyrillus pacificus Uhl.)

Washington. R. D. Eichmann (May 30): On May 23 observed apparently moving into wheat as native grasses dry up at Prosscott, Walla Walla County. A general feeder and usually of slight economic importance.

G. Edward (June 6): Reported as attacking winter wheat 8 miles northeast of Dayton, Columbia County.

WHEAT JOINTWORM (Harmolita tritici Fitch)

Ohio. T. H. Parks (June 21): Has increased greatly since last year and is quite abundant in some wheat in central part of the State. This insect, formerly a major pest of wheat here, has been very scarce for 20 years.

WHEAT STRAW WORM (Harmolita grandis Riley)

Nebraska. M. H. Swenk (June 20): Seriously infesting wheat in an area in south-central section this spring. On June 12 found infesting wheat plants as far north as Merrick County.

ARMYWORM (Cirphis unipuncta Haw.)

Connecticut. N. Turner (June 19): Twelve acres of corn heavily damaged on June 15, the larvae marching in on June 14. One acre of sweet corn in New Milford lightly infested on June 9. Another infestation reported in North Haven.

New York. N. Y. State Coll. Agr. News Letter (June 26): Outbreak just reported by J. S. Clark, Caumsett, Huntington, Long Island.

New Jersey. C. A. Clark (June 3): Armyworms, after destroying about 10 acres of timothy, migrated to adjacent young corn at Moorestown, and completely destroyed 5 acres of sweet corn about 8 inches high.

Delaware. L. A. Stearns (June 12): Single outbreak in vicinity of Hockessin, New Castle County, reported and observed during week commencing June 12.

Missouri. L. Haseman (June 24): Doing considerable damage on some farms in southeastern section during the month. Only an occasional specimen collected in central part of the State.

SORGHUM WEBWORM (Celama sorghiella Riley)

Kentucky. W. A. Price (June 23): On rye heads received from Owensboro, accompanied by statement that they had destroyed much of the grain in a 15-acre field.

CORN

EUROPEAN CORN BORER (Pyrausta nubilalis Hbn.)

Maine. J. Hawkins (June 5): Approximately 30 percent of the corn borers survived in cages at Unity.

Vermont. H. L. Bailey (June 24): Pupae found at Norwich, Windsor County, in the Connecticut River Valley, and at Vernoh, Windham County, the southeastern town of the State, the week of May 22. An adult had emerged on June 5 from pupa collected at Vernon, indicating the 2-generation strain. Moderate abundance of larvae found in debris throughout the State.

Massachusetts. A. I. Bourne (June 26): First eggs noted on June 3. These, however, showed the beginning of embryonic development, indicating that they had been deposited 1 or 2 days previously. In the vicinity of the college at Amherst the first eggs were hatching by June 8 or 9.

Connecticut. N. Turner (June 19): Infestation very heavy in New Haven County. Less abundant than last year in the Housatonic Valley. One observation in Hartford showed fewer eggs than expected. Drought of the last month apparently favored oviposition, and apparently infestation will be heavier than usual.

New York. N. Y. State Coll. Agr. News Letter (June 26): R. W. Leiby noted newly hatched larvae of the corn borer, 1/8 inch long, and a few 1/2 inch long were commonly observed in Dutchess and Ulster Counties on June 19 and 20. In earliest sweet corn just beginning to show tassels. Eggs abundant. Pin-hole type of feeding of newly hatched borers common on leaves, most of them being among unfolded blades of the corn bud. In one field in Ulster County eight borer moths observed in 10 minutes; stalks in this field already 100-percent infested, with many eggs unhatched. In Nassau County L. A. Carruth noted moth emergence probably completed; first-generation borers common, the largest about half grown. Experimental control treatments for first-generation borers nearly completed. He observed

in Columbia and Albany Counties moth emergence from overwintered borers from 85- to 90-percent complete. Control work progressing. Eggs relatively abundant. In Dutchess County very young corn borers infesting older plantings of corn 100 percent.

New Jersey. C. A. Clark (June 24): Eggs approximately three times as abundant as in 1938 on early market sweet corn in the Beverly district of Burlington County.

Maryland. E. N. Cory (June 16): Prevalent in potatoes at Pocomoke and Newark, in Worcester County. One pupa found.

Virginia. H. G. Walker and L. D. Anderson (June 26): Found infesting potatoes in Princess Anne County near Pungo on June 20. This is the first record of its occurrence on potatoes in Princess Anne County and the first time it has been found in the Pungo area.

Indiana. J. J. Davis (June 21): Emergence records to date indicate a heavy infestation.

CORN EAR WORM (Heliothis armigera Hbn.)

New York. N. Y. State Coll. Agr. News Letter (June 26): In Nassau County moths are just beginning to appear; one egg and a third-instar larva observed in the field.

Illinois. R. A. Blanchard (June): An occasional egg of corn ear worm observed on sweet corn in central part of the State near Urbana by June 5. On June 7 eggs and newly hatched larvae were abundant on leaves and in buds of early dent corn in the vicinity of Carmi, southeastern section of the State. Examinations in other areas in southern Illinois showed eggs and larvae present on dent and sweet corn but not as abundant as in the Carmi area. All larvae observed were in first and second instars. On June 8 a small patch of early sweet corn, just coming into silk, in the East St. Louis area, had from 5 to 15 eggs on each silk. Dent corn in the same area showed only an occasional egg on the leaves. Occasional larvae, about third and fourth instar, observed. On June 14, a number of examinations of sweet and dent corn near Hanna failed to show any eggs or larvae. Some of the sweet corn beginning to silk.

Kentucky. W. A. Price (June 23): First corn ear worm eggs found at Lexington on June 6.

Alabama. J. M. Robinson (June 21): On corn at Haleyville and Hamilton on June 9.

Missouri. L. Haseman (June 24): Larvae, of presumably the first brood, have been causing considerable damage since the middle of June in southeastern section; boring down into the undeveloped corn tassels. In the central area feeding exposed on the foliage of flowering tobacco.

R. A. Blanchard (June): A 6-acre field of early sweet corn near Charleston, southern part of the State, has eggs or larvae on every plant. The field has about 25 percent of the plants in tassel, with an occasional silk appearing. As high as five larvae observed in a single tassel, and each plant had several eggs on the leaves, tassels, or the silks, if present. Some last-instar larvae observed in the tassels or boring into newly formed ears. About 50 percent of the plants in the early planted dent corn fields had eggs or larvae. Larvae first to third instar.

Kansas. H. R. Bryson (June 24): Considerable injury to curl of early corn.

Oklahoma. C. F. Stiles (June 21): Reported as very numerous in early corn near Durant, Bryan County. Many of the tassels badly damaged.

Texas. K. P. Ewing and W. S. McGregor (June 3): In 2 fields in McLennan County 400 corn plants were inspected, with an average of 17 bollworm eggs found per 100 stalks.

C. R. Parencia and S. E. Jones (June 17): In 4 cornfields in Calhoun County an average of 16.5 percent emergence holes per 100 ears was found.

FALL ARMYWORM (Laphygma frugiperda A. & S.)

Mississippi. C. Lyle (June 24): Grass worm reported as injuring corn in Lee, Lauderdale, Clarke, and Wayne Counties.

LESSER CORNSTALK BORER (Elasmopalpus lignosellus Zell.)

Georgia. P. M. Gilmer (June 24): Report received from Cuthbert, near the southern Alabama line, of severe injury to approximately 1 acre of corn. I suspect this may be corn budworm which has been somewhat abundant and has done some damage in isolated fields.

Mississippi. C. Lyle (June 24): Infestation in the southern part of the State reported as lighter than usual.

SUGARCANE BEETLE (Eucthola rugiceps Lec.)

Kentucky. W. A. Price (June 23): Rough-headed cornstalk borer has done some damage to corn in the vicinity of Williamsburg.

Tennessee. G. M. Bentley (June 20): Doing damage to corn at Columbia, Maury County.

Alabama. J. M. Robinson (June 21): On corn at Evergreen, Browns, and Athens on June 1.

GRAPE COLASPIS (Colaspis brunnea F.)

Ohio. J. S. Houser (June 8): Serious damage done to about 3 acres of corn in a larger field at Mansfield, Richland County, southwestern part of the State, which was in small grain in 1938 in which the spring seeding of grass failed. Reported that as many as 15 to 20 larvae could be found in some hills.

T. H. Parks (June 21): Larvae of what is apparently C. brunnea received from Brown County, adjoining Richland County, with statement that they were feeding on roots of corn in land that grew soybeans in 1938.

Indiana. J. J. Davis (June 21): An outstanding pest of corn throughout the State, although most inquiries have been from the southern half. Increasing numbers of reports now being received from northern area. Earliest reports came from southern part on June 8, and by the middle of June larvae were pupating in this area. Injury in most cases was to corn, although one report indicated severe injury to soybeans. Notable that many reports indicated injury as following lespedeza.

Illinois. W. P. Flint (June 20): Very abundant on clover, sweet clover, alfalfa, and soybean ground. Damage reported only on ground planted to these crops in 1938. Several thousand acres of corn in central and south-central parts of the State destroyed by larvae.

Kentucky. W. A. Price (June 23): Has damaged corn extensively in all sections of the State.

Iowa. H. E. Jaques (June): Corn root damage following clover sod occurred in Louisa County.

Missouri. L. Haseman (June 24): Since early in June numerous complaints from southeastern part of the State indicate serious damage by larvae of this pest on the roots of corn. In the central part large numbers of adults were observed on June 18 feeding on grapes.

THRIPS (Thysanoptera)

Connecticut. N. Turner (June 19): Severe damage to 7 acres of silage corn in Southbury, southern part of the State. Generally prevalent on sweet corn.

New York. N. Y. State Coll. Agr. News Letter (June 5): Serious injury to young sweet corn in Rensselaer County was caused by Anaphothrips obscurus Mull. From 800 to 1,000 acres of knee-high corn involved. Injury by this pest to corn is unusual. (June 12): Recorded as being injurious to various grasses and young corn. Seen causing serious injury prior to rains last week to corn in Albany, Schenectady, and Rensselaer Counties. Observed causing light injury to corn in Tompkins and Chemung Counties. (June 19): Also reported in Columbia

and Orange Counties; on both sweet and field corn in the latter county. (June 26): Second generation of thrips now appearing. Injury to corn blades higher on the stalk observed in the Hudson Valley on June 19-20. Injury probably will affect yield, although not serious enough now to warrant control measures. In Ulster County they were present on sweet corn in most fields and causing considerable mottling of the leaves. Present on all parts of some plant over 2 feet high. A new generation of thrips now appearing.

ALFALFA AND CLOVER

ALFALFA WEEVIL (*Hypera postica* Gyll.)

Utah. G. F. Knowlton (May 30): Injury appearing in many fields in northern Utah. Alfalfa being cut early at Lewiston and Trenton, Cache County, owing to weevil damage. (June 5): Injury severe in some fields at Pleasant Grove, Utah County, Draper, Salt Lake County, and North Ogden, with moderate injury rather common in many localities in northern area of the State.

Wyoming. F. V. Lieberman (June 30): Specimens collected in Crook County. (Det. by A. G. Boving.)

Colorado. F. V. Lieberman (June 24): Five larvae collected in Larimer County on June 14. (Det. by A. G. Boving.)

California. A. E. Michelbacher (June 21): Alfalfa fields about Pleasanton were surveyed on June 14. The average number of alfalfa weevil larvae collected to the 100 sweeps of an insect net for the different fields ranged from 0 to 28. In the alfalfa fields adjacent to the San Francisco Bay the count ranged from 0 to 5. In the infested portion of the San Joaquin Valley the second brood of alfalfa weevil larvae is making its appearance. On June 16 the average number of larvae collected in the different fields ranged from 0 to 150 to 100 sweeps of an insect net.

PEA APHID (*Macrosiphum pisi* Kltb.)

Maine. J. Hawkins (June 16): Infestation very general in the central and northeastern parts, but not heavy. All clover and peafields visited found with a light and evenly distributed population.

Nebraska. D. B. Whelan (June 20): Common on first cutting of alfalfa.

Utah. G. F. Knowlton and F. C. Harmston (June 8): Damaging alfalfa in a field near Layton.

COWPEAS

GARDEN FLEA HOPPER (*Halticus citri* Ashm.)

Texas. T. B. Randolph (June 22): Heavy infestation of adults on crotalaria in Hidalgo County on May 31.

F R U I T I N S E C T S

COAST TENT CATERPILLAR (Malacosoma pluvialis Dyar)

Washington. E. J. Newcomer (June 7): Found defoliating many apple, pear, alder, cherry, and other trees, in Snohomish County.

W. W. Baker and B. J. Landis (June 16): Extremely abundant at Gig Harbor, Purdy, and Wollochet Bay on May 24, and at various places on Vashon Island late in May and early in June. Hosts on Vashon Island included apple, cherry, pear, aspen, willow, hazel, mountain-ash, currant, gooseberry, and, to some extent, cultivated Rubus sp. Larvae abundant at Winslow, Bainbridge Island, on June 13, some having migrated to strawberry fields, where occasional feeding was observed. Feeding also observed on Rhamnus purshiana and salmonberry. Larvae abundant over a wide area east of Skykomish on June 11, some feeding observed on thimbleberry, alder, and willow.

ROSE LEAF BEETLE (Nodonota puncticollis Say)

New York. N. Y. State Coll. Agr. News Letter (June 26): Very abundant and damaging apples, peaches, pears, and grapes in southeastern counties the first 2 weeks of June. Still found in small numbers but injury is ceasing.

Pennsylvania. C. C. Hill (June 8): Observed abundant and attacking rose at Carlisle.

OBLONG WEEVIL (Phyllobius oblongus L.)

New York. N. Y. State Coll. Agr. News Letter (June 5): Observed in western New York on apple foliage in Monroe County and on sweet cherry and apples in Wayne County.

SAN JOSE SCALE (Aspidiotus perniciosus Comst.)

Georgia. O. I. Snapp (June 19): Infestation on peach at Fort Valley, central Georgia, still greater than that of an average year.

Mississippi. C. Lyle (June 24): Heavy infestations on untreated trees in Lauderdale County.

Oklahoma. F. A. Fenton (June 20): Reported on peach from Welch, Craig County.

Washington. L. G. Smith (June 20): In the migratory stage in north-central Washington.

E. J. Newcomer (June 19): The San Jose scale parasites reported as Aphelinus sp. on page 71 of the Insect Pest Survey

Bulletin dated May 1, 1939, has been determined by A. B. Gahan as Aphytis mytilaspidis (LeB.).

APPLE

CODLING MOTH (Carpocapsa pomonella L.)

Massachusetts. A. I. Bourne (June 26): Apparently of normal abundance.

New York. D. W. Hamilton (June 20): At Poughkeepsie moths began emerging in overwintering cages on May 23; first moths captured in bait traps on May 23; and first captured at Kinderhook on May 25. Peak captures in bait traps from May 27 to June 3. Weather conditions very favorable for oviposition and first-brood entrances. First entrances found on June 6 at Poughkeepsie and on June 7 at Kinderhook. Entrances now readily found in orchards where control was poor last year.

N. Y. State Coll. Agr. News Letter (June 12): In eastern New York first entrance found in Rockland County on June 8 and in Columbia County on June 7. (June 19): A few entrances observed in southeastern counties. In western New York eggs laid since May 30. Indications on June 12 were that the lake zone was about a week late. First entrances found in Niagara County on June 12 and in Orleans County on June 13. (June 26): Entrances not numerous in southeastern counties. Moth catches dropping off considerably in the Hudson Valley but moths still being caught and oviposition going on. In western New York entrances easily found in Niagara and Orleans Counties, but only a few in Wayne and Clinton Counties.

Delaware. L. A. Stearns (June 27): First-brood attack about over; infestation approximately average. Emergence period of spring-brood moths from May 5 to June 14, with 50 percent having emerged on May 18-19. Peak of moth flight from May 30 to June 1, with considerable activity about June 12-13.

Maryland. E. N. Cory (June 16): Specimens sent from Easton show presence of moths and injury to apples.

Virginia. A. M. Woodside (June 17): Emergence of spring brood of adults about complete at Staunton, as shown by insectary observations and bait traps. First-brood larvae began to leave fruit about June 9, and a few pupae found on June 16.

Ohio. T. H. Parks (June 21): Bait traps operated in Delaware County, central Ohio, show the peak catch on May 26, with a gradual reduction up to the present. First entrances observed on June 3. Maximum catch at Waterville, near Toledo, was on May 29, with another peak on June 6.

Indiana. L. F. Steiner (June 7): Bait-trap catches in orchards in the Vincennes area total 687 from June 1 through June 7. Heavy hatch

since a week ago. Moths apparently as abundant as a week ago. (June 22): Mature larvae began leaving apples on June 8. Adults of first brood expected to emerge this week. First-brood larvae should begin hatching about July 1. Infestation below normal throughout southwestern Indiana, eastern Illinois, and northern Kentucky.

Illinois. W. P. Flint (June 20): First brood bunched more closely than at any time for the last 5 or 6 years, resulting in very good control.

Wisconsin. C. L. Fluke (June 24): Cool, damp weather of flight period has reduced numbers much below normal.

Iowa. A. P. Parsons (June 10): Severe damage to apples and pears in Union County, south-central Iowa.

Missouri. L. Hasenan (June 24): Spring brood more bunched than usual, and comparatively little difference in emergence dates in the southern and northern parts of the State. Peak of emergence during the last 2 weeks in May, and since June 15 very few moths about. First-generation larvae leaving fruit for the last several days in central Missouri. Lightest infestation of first-brood larvae in 10 years throughout the State. In southeastern Missouri the first of the first-generation larvae left fruit on June 6 and pupated on June 8.

Washington. L. G. Smith (June 6): Still a large number of eggs on fruit, and increasing numbers of larval entries noted the last 2 days.

E. R. Van Leeuwen (June 19): Approximately 90 percent of spring-brood moths have emerged at Yakima. Peak of first-brood larvae entering apples and pears took place during the period May 29 to June 3. First larvae to leave fruit taken on June 14. Large numbers of spring-brood eggs continuing to hatch.

Oregon. B. G. Thompson (June 20): Emergence of first-brood adults in the Willamette Valley reached its peak on June 10.

FRUIT TREE LEAF ROLLER (Cacoecia argyrospila Walk.)

Indiana. L. F. Steiner (June 15): Adults appearing in bait traps in the Vincennes area in unusually large numbers. Injury common in untreated orchards.

Illinois. W. P. Flint (June 20): Larvae matured late in May, pupated, and emergence practically complete by June 6. Moths extremely abundant. Ten light traps at Urbana caught over 1,000 moths per trap per night on several nights during the week of June 12. Moths still fairly abundant. Catch now running about 1,000 moths per night for all 10 traps.

Missouri. L. Haseman (June 24): Moths began emerging in southeastern Missouri from June 5 to 11, peak of emergence on June 13. In northeastern Missouri moths began flying on June 1. First moths taken in bait traps in central Missouri on June 2. Peak of emergence from June 15 to 20, and now very few moths still on wing.

Nebraska. M. H. Swenk (June 20): Infested specimens of leaves, buds, and twigs from chokecherry, apple, elm, boxelder, rose, poppy, columbine, and spiraea sent in from Kimball County on June 2.

PISTOL CASEBEARER (Coleophora malivorella Riley)

West Virginia. B. A. Porter (June 9): Larvae and pupae, also dead adults, on apple at Kearneysville on June 8. (Det. by C. Heinrich.)

Illinois. W. P. Flint (June 20): Adults emerging since about June 1. Adults, larvae, and pupae all present in western Illinois on June 6.

APPLE LEAF SKELETONIZER (Psorosina hammondi Riley)

Missouri. L. Haseman (June 24): Damage begun in northwestern Missouri on June 22. Heavy catch of moths in southwestern Missouri on June 17.

APPLE CURCULIO (Tachypterellus quadrigibbus Say)

Pennsylvania. H. E. Hodgkiss (June 22): Eggs observed on June 6 in Juniata County.

Missouri. L. Haseman (June 24): More abundant, and more damage done to pears and certain varieties of apple than ever known before in central Missouri. Adults still feeding and ovipositing, and earlier larvae ready to pupate.

NEW YORK WEEVIL (Ithycerus noveboracensis Forst.)

Massachusetts. A. I. Bourne (June 26): A recurrence of the outbreak in an orchard at South Amherst; appearing on young trees and damaging the new growth. Reported as not as abundant as last year.

LOCUST LEAF MINER (Chalepus dorsalis Thunb.)

Virginia. A. M. Woodside (June 17): Both fruit and foliage severely damaged in an untreated apple orchard near Staunton during May. Locust seedlings in the orchard as thick and about as tall as the apple trees.

APHIDS (Aphidae)

Connecticut. P. Garman (June 20): Season unfavorable for rosy aphid (Anuraphis roseus Baker) and, although abundant early in the season, little damage has been done.

New York. N. Y. State Coll. Agr. News Letter (June): By the third week in June in the fruit-growing sections of eastern New York and in the lake district the apple aphid (Aphis pomi Deg.) and the apple grain aphid (Rhopalosiphum prunifoliae Fitch) had developed wings and were leaving the fruit trees. Rosy apple aphid more abundant than usual. By the end of the month green apple aphids were becoming numerous again on terminals and fruit in both eastern and western New York. In Dutchess County as many as 25 to 50 found on a single fruit.

Delaware. L. A. Stearns (June 27): Apple aphids relatively scarce; no serious injury reported or observed.

Ohio. T. H. Parks (June 21): Colonies of A. roseus appeared in some orchards early in June but now largely gone. Predators present.

Indiana. L. F. Steiner (June 1): A. pomi increasing steadily in the Vincennes area, although the rosy aphid situation has improved slightly.

J. J. Davis (June 21): A. roseus abundant in some sections of southern Indiana, and at present doing some damage in northern Indiana.

Kentucky. W. A. Price (June 23): Green aphids abundant late in May and early in June. Some foliage injury by rosy aphids but little fruit injury this season.

Wisconsin. C. L. Fluke (June 24): Green apple aphid more numerous than last year in Crawford County.

Missouri. L. Haseman (June 24): Rosy apple aphid still quite troublesome in southeastern Missouri during the first half of June. Of practically no importance this year in central Missouri.

Oklahoma. F. A. Fenton (June 20): Woolly apple aphid (Eriosoma lanigerum Hausn.) reported on apple at Pawhuska, Osage County.

APPLE MAGGOT (Rhagoletis pomonella Walsh)

New York. N. Y. State Coll. Agr. News Letter (June 26): Flies began to emerge in traps near Poughkeepsie on June 19, and the number caught on successive days since then has increased normally. First fly observed in Rockland County on June 17; reported a day or two earlier. Apparently more abundant than usual at this time of year.

APPLE LEAF-CURLING MIDGE (Dasyneura mali Kieff.)

New York. N. Y. State Coll. Agr. News Letter (June 19): Reported on apples from Monroe and Wayne Counties.

PEACH

PLUM CURCULIO (Conotrachelus nenuphar Hbst.)

Massachusetts. A. I. Bourne (June 26): Apparently of normal abundance.

Connecticut. M. P. Zappe (June): Serious injury to apple, peach, and sour cherry in New Haven County. Apparently more abundant than usual.

New York. D. W. Hamilton (June 20): Injury on apple and cherries at Poughkeepsie more severe than that of the last three seasons.

N. Y. State Coll. Agr. News Letter (June): More abundant and injurious than for years in eastern and western New York on apple, plum, peach, and cherry.

Delaware. L. A. Stearns (June 27): Overwintered adults active from April 19 to June 21, with peak on May 11. Injury rather severe, especially in the southern section of the State, which is normally a two-brooded area.

Virginia. A. M. Woodside (June 17): Larvae fairly abundant in drop peaches in the Crozet section late in May and early in June. Most have now pupated. Infestation very light in the Timberville section.

Georgia. O. I. Snapp (June 19): First-generation adults began to emerge from soil in the insectary at Fort Valley on May 27 and in the rearing room on May 31, a week later than first emergence last year. Peak of emergence in the rearing room on June 4. Jarring in peach orchards revealed a marked increase in adults from May 31 to June 8, owing to emergence of new beetles from the soil. No second-generation egg deposition by June 19. Overwintered beetles not dead as early as usual this year, and a number found on trees in orchards as late as May 31. As a result, early and mid-season varieties of peach, which have been harvested, contained more larvae than usual. Second-generation attack on Hiley, Georgia Belle, and Elberta peaches expected.

J. E. Webb, Jr. (June 24): First-brood beetles now emerging from peaches in the north-Georgia section around Cornelia.

Indiana. J. J. Davis (June 21): Abundant and destructive to peaches and plums in some sections of southern and northern Indiana.

Illinois. W. P. Flint (June 20): Continued abundant. Mating adults taken by jarring in peach orchards during the second week in June.

Mississippi. C. Lyle (June 24): Larvae received from Hinds County on May 29. Reports of injury to peaches in southwestern and east-central Mississippi.

Iowa. A. P. Parsons (June 10): Severe damage to plums and cherries in Union County.

Missouri. L. Haseman (June 24): One of lightest infestations on stone fruits in many years, and very little evidence of injury on apples in central Missouri.

ORIENTAL FRUIT MOTH (Grapholitha molesta Busck)

Connecticut. P. Garman (June 20): First-generation larvae evident in unusual numbers in Fairfield and New Haven Counties. Present in abundance throughout the State. Egg parasitization considerably above normal.

New York. N. Y. State Coll. Agr. News Letter (June 12): Some injury to fruit and twigs in eastern New York the first week of June. (June 26): Found in peach terminals in Niagara County.

Delaware. L. A. Stearns (June 27): Spring-brood emergence ended on June 4. Peak of first-brood twig injury during last week in May. Second brood now active, and twig injury about normal.

Virginia. A. M. Woodside (June 17): Reported from the Charlottesville laboratory that second-brood larvae are developing at least 10 days ahead of last year, twig infestation being at its peak in Albemarle County now.

Georgia. O. I. Snapp (June 19): Infestation at Fort Valley less than that of an average year.

Kentucky. W. A. Price (June 23): Much scarcer this year in Kentucky than last year.

Tennessee. G. M. Bentley (June 20): Very little in peach orchards or in nurseries. Very little found on plum trees. None observed in early apples.

Mississippi. C. Lyle (June 24): Injured peach twigs received from Marion County on May 29, and reports of injury from Simpson, Tallahatchie, Lauderdale, and Holmes Counties late in May and early in June.

Missouri. L. Haseman (June 24): Peak of first-brood moth emergence came on June 5 in southeastern Missouri. Twig infestation by second-brood larvae 50 percent heavier than by first brood. On June 16 a few of these had left the twigs and spun cocoons.

PEACH BORER (Conopia exitiosa Say)

Virginia. A. M. Woodside (June 17): Reported from Charlottesville laboratory that some eggs are hatching in Albemarle County, although most of the moths have not emerged.

Georgia. O. I. Snapp (June 16): Heavy infestation in a peach orchard at Ducker, southwestern Georgia. (June 19): Infestation at Fort Valley heavy in those peach orchards not treated last fall or winter.

Kentucky. W. A. Price (June 23): Adults began emerging at Lexington on June 5.

Nebraska. M. H. Swenk (June 20): Found attacking year-old peach trees in Nemaha County on May 23.

Texas. R. K. Fletcher (June 22): Peach severely injured in Henderson County on June 15.

GREEN PEACH APHID (Myzus persicae Sulz.)

New York. N. Y. State Coll. Agr. News Letter (June 5): Unusually abundant on peach and plum in western New York. Predators also abundant.

CHERRY

CHERRY FRUITFLIES (Rhagoletis spp.)

New York. D. W. Hamilton (June 20): Adults of R. cingulata Loew first taken in emergence cages at Hudson on June 10. Heavy emergence since June 12 in untreated orchards. Adults of black cherry fruitfly (R. fausta O. S.) captured in emergence cages in untreated orchards at Hudson as early as May 31. Emergence ceased on June 7.

Michigan. R. Hutson (June 24): R. cingulata taken at South Haven on June 7 and at Grand Rapids on June 14. R. fausta taken at Hartford on June 9, at Plainwell and Grand Rapids on June 14, and at Moran on June 20.

Washington. R. F. Kern and E. P. Breakey (June 13): Cherry fruitfly (R. cingulata) emerged on June 5 in western Washington.

BLACK CHERRY APHID (Myzus cerasi F.)

New York. D. W. Hamilton (June 20): More prevalent on both sweet and sour cherries throughout the Hudson Valley than for the last three seasons.

Maryland. E. N. Cory (June 13): Reported on cherry at Baltimore.

Tennessee. G. M. Bentley (June 20): Noticed on cherry on May 23 near Smithville, DeKalb County. Several leaves had fallen off the tree, owing to the injury.

Michigan. R. Hutson (June 24): Reported from Grand Rapids and Jackson.

Utah. G. F. Knowlton (June 13): Damaging cherry foliage at Brigham, Centerville, and Springville.

CHERRY FRUIT MOTH (Grapholitha packardii Zell.)

Washington. W. W. Baker (June 16): Sample of 240 cherries from the Kent area brought in on June 7. Only one egg found and this had not hatched by June 16, although apparently alive.

PEAR SLUG (Caliroa cerasi L.)

Ohio. T. H. Parks (June 21): Cherry slug very common on pear and cherry.

Indiana. J. J. Davis (June 21): Cherry slugs reported from several sections of the State, but only in untreated orchards.

Washington. B. J. Landis and W. W. Baker (June 16): Newly hatched larvae observed on sweet cherries at Puyallup, Pierce County, western Washington, on June 3.

L. G. Smith (June 20): Reported on June 14 from Pasco, Franklin County, eastern Washington, as in great numbers on a cherry tree, damaging the leaves badly.

HAWTHORNE LEAF MINER (Profenusa canadensis Marlatt)

New York. D. W. Hamilton (June 20): Adults captured from May 10 to 15 in emergence cages under cherry trees. Larval tunnels first observed in cherry leaves at Poughkeepsie on May 24; larvae had begun leaving the leaves on May 29; practically all gone by June 1. At this time 7 percent of the leaves were injured in one of the more heavily infested orchards. Injury apparently somewhat lighter than in 1938.

PEAR

PEAR PSYLLA (Psylla pyricola Foerst.)

New York. N. Y. State Coll. Agr. News Letter (June 19): Not abundant in eastern or western New York the first half of June. (June 26): Slowly increasing in numbers and causing some injury in a few orchards in eastern New York.

PEAR LEAF ROLLING MIDGE (Dasyneura pyri Bouche)

New York. N. Y. State Coll. Agr. News Letter (June 12): Reported from Ulster County, eastern New York.

PEAR LEAF BLISTER MITE (Eriophyes pyri Pgst.)

Washington. R. D. Eichmann (May 30): Several reports of injury received from Clallam and Snohomish Counties.

RASPBERRY

RASPBERRY CANE BORER (Oberea bimaculata Oliv.)

- Ohio. E. W. Mendenhall (June 12): Found mildly infesting raspberry canes, especially the red variety, at New Carlisle, Clark County.
- Minnesota. A. G. Ruggles and assistants (June 19): Abundant around St. Paul and Minneapolis. Numerous reports from raspberry growers.
- Washington. C. F. Webster (June 6): A small amount of damage to raspberries and loganberries on Orcas Island, Island County. Said to be the first time reported in the county.

RASPBERRY SAWFLY (Monophadnoides rubi Harr.)

- Ohio. E. W. Mendenhall (June 12): Some damage to leaves of raspberries in some plantations in Fairfield and Clark Counties.

RASPBERRY FRUITWORM (Byturus unicolor Say)

- Washington. B. J. Landis (June 16): Adults moderately abundant in raspberries near Startup and Sultan on June 11.

CRANBERRY AND BLUEBERRY

BLACK-HEADED FIREWORM (Rhopobota naevana Hbn.)

- Massachusetts. M. D. Leonard (June 20): Reported as very abundant in the Cape Cod cranberry section, especially in the locality of Stoughton.

A BEETLE (Oberea tripunctata Swed.)

- North Carolina. B. A. Porter (June 13): A small proportion of cultivated blueberry bushes in an extensive planting at Atkinson infested. (Det. by A. G. Boving.)

LEAF-FOOTED BUG (Leptoglossus phyllopus L.)

- North Carolina. B. A. Porter (June 13): Moderately abundant in several fields of cultivated blueberry at Atkinson. Feeding on berry clusters. (Det. by H. G. Barber.)

GRAPE

GRAPE LEAFHOPPER (Erythroneura comes Say)

- New York. N. Y. State Coll. Agr. News Letter (June 26): Nymphs beginning to appear on the undersides of leaves in small numbers in Ulster County.

Delaware. L. A. Stearns (June 27): Infestation generally light; no control measures necessary.

Michigan. R. Hutson (June 24): Peak of hatch at Lawton and Paw Paw on June 20.

Nebraska. D. B. Whelan (June 7): Nymphs and adults on grape leaves.

Oklahoma. F. A. Fenton (June 20): Reported from Shawnee, Pottawatomie County.

Montana. H. B. Mills (June 12): Virginia creeper leafhoppers, E. comes ziczac Walsh, abundant at Bozeman this spring. Early attacks noted on dandelion and flowering currant. Many eggs now but no nymphs noted on Virginia creeper and grape.

Utah. G. F. Knowlton (June 11): E. comes ziczac and E. elegans McA. beginning to spot Virginia creeper and some varieties of grape foliage conspicuously at Farnington, Logan, and Ogden.

California. C. S. Morley (June 12): Considerable control measures being used in vineyards.

GRAPE BERRY MOTH (Polychrosis viteana Clem.)

Michigan. R. Hutson (June 24): Peak of hatch on June 7 at Lawton and Paw Paw. Grapes in full bloom.

GRAPE PLUME MOTH (Pterophorus periscelidactylus Fitch)

Ohio. J. S. Houser (June 2): Damage occasionally done in Ohio by destroying grapes in the fruit-bud stage. Damage noted at Sebring.

GRAPE ROOTWORM (Fidia viticida Walsh)

Nebraska. D. B. Whelan (June 7): Adults and their injury found on grape leaves near Lincoln.

GRAPE FLEA BEETLE (Altica chalybea Ill.)

New York. N. Y. State Coll. Agr. News Letter (June 19): Larvae especially numerous and injurious throughout the month in western New York. Reported from Schuyler, Chautauqua, and Niagara Counties.

GRAPE THRIPS (Drepanothrips reuteri Uzel)

California. S. F. Bailey (June 21): Injury to berries of grape at Sanger not as severe as in 1938, but presence of many adults indicates much potential damage to leaves in July and August.

CITRUS

CITRUS THRIPS (Scirtothrips citri Moulst.)

California. C. S. Morley (June 12): Control measures used a great deal. Showing up more than anticipated the first of the year.

CITRUS WHITEFLY (Dialeurodes citri Ashm.)

Florida. J. R. Watson (June 21): Summer generation on the wing most of the month.

COTTONY-CUSHION SCALE (Icerya purchasi Mask.)

Mississippi. C. Lyle (June 24): Found in large numbers on pecan in one locality in Hinds County on June 8.

Arizona. C. D. Lebert (June 23): Many infestations observed over the Salt River Valley in citrus and ornamentals. Australian lady-beetle (Rodolia cardinalis Muls.) present in practically all locations and controlling the scale well.

CALIFORNIA RED SCALE (Aonidiella aurantii Mask.)

Arizona. C. D. Lebert (June 23): A small but heavy infestation found in a citrus grove in the Phoenix area on June 11. Eleven trees infested in a 3-acre grove. Control measures under way at present.

YELLOW SCALE (Chrysomphalus citrinus Coq.)

California. R. S. Woglum (June): Becoming more widely distributed than formerly and showing a general increase. Protective district being formed in the Porterville area to prevent establishment.

BLACK SCALE (Saissetia oleae Bern.)

California. R. S. Woglum (June): An increase this year over last season. Build-up apparently not especially severe over the coastal areas, except in occasional groves. Eastern Los Angeles, western San Bernardino, and Riverside Counties show only a slight build-up over last year, but in eastern San Bernardino County, from Etiwanda to Redlands, more pronounced than for several years.

PAPAYA

PAPAYA FRUITFLY (Toxotrypana curvicauda Gerst.)

Florida. J. R. Watson (June 21): Papayas infested with larvae sent in from several localities in the southern part of the State.

TRUCK - CROP INSECTS

VEGETABLE WEEVIL (Listroderes obliquus Klug)

South Carolina. C. F. Rainwater (June 8): Specimens forwarded on May 22 from Florence County constitute a new record for the State, as the insect was recorded previously from Charleston and Oconee Counties only. (Det. by L. L. Buchanan.)

Mississippi. C. Lyle (June 24): Adults received from Copiah, DeSoto, and Lawrence Counties the latter part of May.

CARROT BEETLE (Ligyrus gibbosus Deg.)

Ohio. T. H. Parks (June 21): Sent in from Cincinnati on June 14 with the statement that the beetles were feeding below the crowns of calliopsis and marigolds.

Nebraska. D. B. Whelan (June 5): Tomatoes, cabbage, and cultivated sunflower eaten underground.

FLEA BEETLES (Halticinae)

Maryland. H. L. Dozier and L. W. Saylor (June 4): Systema blanda Melsh. taken from and on dahlias, injuring the foliage of young plants at Cambridge on June 4. (Det. by H. S. Barber.)

Kentucky. W. A. Price (June 23): Two-lined flea beetle (S. taeniata Say) unusually abundant in May and early in June at Lexington, causing considerable damage to lima beans, bush beans, tomatoes and other vegetables.

Mississippi. C. Lyle (June 24): Specimens of Phyllotreta sinuata Steph. received from Copiah County on May 11. Feeding on turnips.

Nebraska. D. B. Whelan (June 20): Western cabbage flea beetle (P. pusill Horn) numerous on turnips and radishes near Lincoln in May and early in June.

Utah. G. F. Knowlton (June 1): The banded flea beetle is seriously damaging foliage of cucumber, beans, swiss chard, beets, peppers, lettuce, and radishes at Caineville, killing many of the plants. (June 3): Striped flea beetles (P. vittata F.) seriously injuring cantaloups at Green River.

Washington. L. G. Smith (May 30): P. vittata was causing severe damage to turnips and young tomato plants in the Spokane Valley on May 24.

SEED-CORN MAGGOT (Hylemya cilicrura Rond.)

Tennessee. G. M. Bentley (June 20): Reported as damaging corn and beans in Obion County on May 17.

North Dakota. J. A. Munro (June 22): Observed to be present in cut seed pieces in practically all potato fields examined in the vicinity of Walhalla. Found occasionally in fields throughout the northern Red River Valley counties. Reported as troublesome in fields at Mandan.

Utah. G. F. Knowlton (June 15): Lima bean plantings damaged recently in various parts of Davis County. Injury to beans also reported from Salt Lake and Utah Counties.

BANDED GREENHOUSE THRIPS (Hercinothrips femoralis Rout.)

Florida. J. R. Watson (June 21): A heavy infestation in a greenhouse at Gainesville on a variety of plants, including Mexican clover (Richardia sp.).

FALSE CHINCH BUG (Nysius ericae Schill.)

North Dakota. J. A. Munro (June 22): Reported as injurious to flax and garden plants from many scattered points in the State.

Arizona. C. D. Lebert (June 23): Several heavy infestations observed in the valley during June, mostly annoying people by invading their homes and migrating over flower beds and shrubs. Several borders of young cotton destroyed in the Peoria area, west of Phoenix, on June 5.

SOUTHERN MOLE CRICKET (Scapteriscus acletus R. & H.)

North Carolina. W. A. Thomas (June 10): Adults still numerous around bright lights in the vicinity of Chadbourn, and there seems to be more evidence of their presence in fields than in former years.

POTATO AND TOMATO

COLORADO POTATO BEETLE (Leptinotarsa decemlineata Say)

New York. N. Y. State Coll. Agr. News Letter (May 29): In eastern New York beetles are appearing in formidable numbers on Long Island and in Rockland County. First eggs observed in Nassau County on May 17 on potatoes and in Rockland County on May 25 in a field of newly set tomato plants where the population averaged about 50 beetles per 100 plants, and plenty of eggs. Beetles reported in rather large numbers in Oswego County, western New York. Numbers of eggs found on May 24 in Suffolk County. (June 12): Larvae now hatching quite rapidly on Long Island and several growers applying control measures for the last two days. In Wayne County eggs have been hatching on muck for several days. In one potato planting in Erie County there was an average of 5.5 beetles per plant, the plants averaging 6 inches high. Egg masses numerous.

Tennessee. G. M. Bentley (June 20): Beetles beginning to appear and lay eggs in DeKalb County on May 18. Apparently not as much damage as at this time last year.

Mississippi. C. Lyle (June 24): Some injury to tomatoes reported from Lauderdale and Webster Counties and to eggplant in Pearl River County.

Iowa. H. E. Jaques (June): Fairly numerous in the southern half of the State and spotted infestations in O'Brien and Worth Counties, in the northern half.

Nebraska. M. H. Swenk (June 20): Reported as very injurious on potato plants in Colfax County on June 1.

D. B. Whelan (June 20): Adults numerous in Lincoln late in May. Larvae were doing considerable damage and full grown by June 10.

Kansas. H. R. Bryson (June 24): Unusually abundant this year.

Utah. G. F. Knowlton (June 15): Outbreak at Clinton, Davis County, at Uintah, Roy, Riverdale, Marriott, Slaterville, Farr West, Plain City, West Weber, and Taylor, all in Weber County, and at Wilson, Millard County, is the worst for at least 3 years. Program to secure thorough treatment is now underway.

FLEA BEETLES (Epitrix spp.)

Connecticut. N. Turner (June 19): Severe infestations of E. cucumeris Harr. on newly set tomato plants throughout the State. Some damage to spinach. Potatoes apparently more heavily infested than usual.

Maryland. E. N. Cory (June 24): Severe injury to potatoes on most farms in Worcester County.

Kentucky. W. A. Price (June 23): Tobacco flea beetles (E. parvula F.) caused considerable damage to tomato plants in the vicinity of Lexington during the latter part of May.

Nebraska. D. B. Whelan (June 20): A few adults of E. cucumeris reported at Lincoln on young potato leaves.

Montana. H. B. Mills (June 15): Western flea beetle (E. subcrinita Loc.) somewhat more abundant this year than in recent years in Valley, Yellowstone, and Gallatin Counties. Attacking potato, tomatoes, and other truck.

Washington. C. B. Whiting (June 20): Reported from Mount Vernon, Skagit County, that the first tuber injury by E. cucumeris noted this year on small tubers about the size of filberts. Adults of both the eastern (E. cucumeris) and the western species (E. subcrinita) quite prevalent in the fields this month.

Oregon. K. W. Gray (June 21): E. cucumeris reached the peak of emergence on May 29 in Deschutes County. Some still emerging. First eggs obtained on June 1.

CORN EAR WORM (Heliothis armigera Hbn.)

South Carolina. J. G. Watts (June 15): About one-third of early tomatoes in commercial plantings in Denmark, Bamberg County, have been damaged, even when control measures were used.

Georgia. T. L. Bissell (June 13): Damage to tomatoes beginning to show up, with the first fruit at full size. Not many worms can be found in corn.

Mississippi. C. Lyle (June 24): Specimens received from Leflore County on June 11, with report that corn was seriously injured, and from Holmes County. Also reported as feeding on corn in Lauderdale County and on tomatoes in Copiah, Holmes, Lauderdale, Lincoln, Oktibbeha, and Pearl River Counties. First crop of tomatoes reported as destroyed in Pearl River County.

E. W. Dunnam, et al. (June 3): One larva found in tomato fruit grown in Leland, Washington County.

Kentucky. W. A. Price (June 23): First injury to tomatoes found on June 21 at Lexington.

HORNWORMS (Protoparce spp.)

South Carolina. J. G. Watts (June 20): Since June 10 commercial plantings of tomatoes at Denmark are suffering some defoliation and fruit injury from P. sexta Johan. At Blackville, in Barnwell County, considerable injury has been done in some home plantings. A few observed feeding on potato and pepper.

Georgia. T. L. Bissell (June 13): A few eggs present on tomatoes with evidence of feeding.

POTATO APHID (Macrosiphum solanifolii Ashm.)

Virginia. H. G. Walker and L. D. Anderson (June 26): The pink and green potato aphid became moderately abundant on potatoes in Northampton County about harvest time. They have also been attacking tomatoes in this area and have caused rather serious damage in some tomato fields.

Utah. G. F. Knowlton (June 10): Less common and injurious this spring than usual.

POTATO LEAFHOPPER (Empoasca fabae Harr.)

South Carolina. J. G. Watts (June 16): Abundant on small home plantings of potatoes at Blackville.

POTATO AND TOMATO PSYLLID (Paratrioza cockerelli Sulc.)

Nebraska. M. H. Swenk (June 20): Report received from Buffalo County on June 12 as being numerous on potato and also present on tomato.

BEANS

MEXICAN BEAN BEETLE (Epilachna varivestis Muls.)

Connecticut. N. Turner (June 19): Adults appeared in usual numbers late in May. Damage light in general, with a few heavy, local infestations.

New York. M. D. Leonard (June 10): Reported as just beginning to appear in some bean fields around Roslyn and several other localities in that section of Nassau County.

N. Y. State Coll. Agr. News Letter (June 12): Beetles laying eggs in Rockland and Suffolk Counties on June 9. In central New York the first beetle taken in western Steuben County on beans on June 3 in a field where there were many beetles last year. First beetle taken in Erie County on June 6. Evidences of adult feeding observed the rest of the week on snap and lima beans. No egg masses found. (June 19): Present in Schuyler County, western New York, for nearly 3 weeks on early plantings of snap beans, and observed in Allegany County. First adults in Wayne County observed on June 15. (June 26): Observations made from June 19 to 23 in the Hudson Valley indicate a heavy survival of beetles, and infestations on snap bean plantings reached point where control of adults necessary. They were laying eggs and about 10 percent of the eggs had hatched. Beetles being found generally on the early planted beans grown in up-State New York. Average of 25 beetles on each 100 field-bean plants in sections of Steuben and Allegany Counties. A few eggs beginning to hatch on June 22. In Livingston County many fields yield beetles, and egg laying has been going on for about a week.

North Carolina. W. A. Thomas (June 9): Particularly abundant during the spring and has defoliated most of the beans in home gardens, causing, in a few instances, serious damage to both soybeans and cowpeas at Chadbourn.

Georgia. T. L. Bissell (June 13): Inquiries about this beetle have come in from Fulton and Pike Counties, central Georgia, and from Grady County, southwestern Georgia. Damage about normally severe in central Georgia.

H. I. Borders (June 16): Snap beans in the southern Georgia area fairly heavily infested. Unusually early this season in a number of cases.

Florida. F. S. Chamberlin (June 24): Reported as very abundant in the eastern part of Gadsden County.

Indiana. J. J. Davis (June 21): Present in threatening numbers in all parts of Indiana.

Tennessee. G. M. Bentley (June 20): Observed earlier this year than for many seasons. Appearance more pronounced in the upland areas of the State.

L. B. Scott (June 21): Normally abundant on beans in north-central Tennessee.

Alabama. J. M. Robinson (June 21): Reported from Sumter County as appearing for the first time at Cuba, which is about 120 miles southwest of Birmingham. Very abundant at Auburn.

Mississippi. C. Lyle (June 24): Specimens received from Scott County on June 11 and Oktibbeha County on June 21. Other reports of injury to beans in these counties received, as well as in Clarke, Lauderdale, Newton, and Tishomingo Counties. Also reported as causing the usual damage over the northeastern part of the State.

BEAN LEAF BEETLE (Cerotoma trifurcata Forst.)

Delaware. L. A. Stearns (June 20): Unusually abundant and destructive in western Sussex County in the vicinities of Laurel and Seaford.

North Carolina. W. A. Thomas (June 9): Very destructive to cowpeas, beans, soybeans, limas, and snap beans at Chadbourn.

Indiana. J. J. Davis (June 21): Reported from many sections of the State, and its injury confused with that of the Mexican bean beetle. First authentic record of the season from Bloomington on May 25.

Tennessee. G. M. Bentley (June 20): Reported as appearing in the usual numbers in DeKalb County on May 18.

PEAS

PEA APHID (Macrosiphum pisi Kltb.)

Connecticut. N. Turner (June 19): Some damage to late garden peas. A few growers preparing to use control measures.

New York. N. Y. State Coll. Agr. News Letter (June): Very abundant and injurious in western New York the first of June, after which time the aphids disappeared.

Pennsylvania. H. E. Hodgkiss (June 22): Infestation relatively small in southeastern Pennsylvania on May 24.

Tennessee. G. M. Bentley (June 20): Reported as damaging garden peas near Nashville, Davidson County, on May 20. Damage light.

Mississippi. C. Lyle (June 24): Specimens received from Kemper County on May 23. Feeding on English peas.

Nebraska. M. H. Swenk (June 20): Complaint of damage to peas received from Colfax County on May 29.

Utah. G. F. Knowlton (May and June): Damaging late canning peas in northern Utah.

PEA WEEVIL (Bruchus pisorum L.)

New York. N. Y. State Coll. Agr. News Letter (June 12): Numerous and growers worried in Orleans County, western New York.

Idaho. J. R. Douglass (June 9): Numerous in southern part of the State.

Utah. G. F. Knowlton (June 5): Adults common in one small field of peas south of Pleasant Grove, Utah County.

Washington. L. G. Smith (May 30): From observations made to date, it looks as though there may be considerable damage caused this season. (June 13): Green-pod peas in the Spokane Valley found infested. Numerous eggs deposited on the developing pods.

CABBAGE

CABBAGE MAGGOT (Hylemya brassicae Bouche)

Connecticut. N. Turner (June 19): Severe damage to untreated fields of cabbage, cauliflower, and broccoli, ranging up to almost a total loss. Cauliflower, even when treated, damaged 10 to 20 percent.

New York. H. Glasgow (May 27): Egg laying by cabbage maggot has about reached its peak today at Geneva.

N. Y. State Coll. Agr. News Letter (May and June): Unusually abundant.

Wisconsin. C. L. Fluke (June 24): Very numerous in all parts of State, wherever cabbages are grown, particularly central, southern, and eastern counties.

CABBAGE CURCULIO (Ceutorhynchus rapae Gyll.)

Wisconsin. C. L. Fluke (June 24): Present in damaging numbers in Dane and Outagamie Counties in cabbage seedbeds. Near Milwaukee common in kohlrabi.

Minnesota. A. G. Ruggles and assistants (June 19): Attacking cabbage at Hopkins on May 17. Moderately abundant.

Nebraska. D. B. Whelan (June 20): Numerous in a garden at Lincoln late in May and early in June. First time observed at Lincoln.

HARLEQUIN BUG (Murgantia histrionica Hahn)

Indiana. J. J. Davis (June 21): Abundant and destructive in the southern tier of counties along the Ohio River.

Mississippi. C. Lyle (June 24): Specimens received from Pike and Simpson Counties on May 29 and June 1, respectively. Feeding on garden vegetables.

Texas. R. K. Fletcher (June 22): In Milam County on May 26, causing severe injury in garden.

SQUASH

SQUASH BUG (Anasa tristis Deg.)

New York. N. Y. State Coll. Agr. News Letter (June 5): A very few specimens observed in Ulster County on June 1. One observed in Monroe County on May 30. (June 12): One adult seen in Albany County. (June 19): First squash bugs found this week in Rockland County. (June 26): Eggs being laid, but none hatched by June 20 in Dutchess and Ulster Counties.

Missouri. L. Haseman (June 24): In central Missouri adults began to appear on squashes on June 20. Very few complaints received from throughout the State.

Nebraska. M. H. Swenk (June 20): Request for information on control received from Garden County on June 3.

Washington. I. M. Ingham (June 13): Eggs still being found in Franklin County on June 9, but no nymphs have appeared.

MELONS

CUCUMBER BEETLES (Diabrotica spp.)

Massachusetts. A. I. Bourne (June 26): About June 8 complaint received of rather extensive and serious damage caused by the striped cucumber beetle (D. vittata F.) eating into the forming heads of lettuce. Beetles unusually abundant and feeding upon the central leaves.

Connecticut. N. Turner (June 19): Emergence of D. vittata in May and June very heavy. Severe damage to untreated fields of squash and melons.

New York. N. Y. State Coll. Agr. News Letter (June 19): Striped cucumber beetles very abundant in Nassau and Rockland Counties, eastern New York, causing severe injury to cucumbers and squash.

South Carolina. J. G. Watts (June): D. duodecimpunctata L., D. vittata, and D. balteata Loc. less abundant than last month, probably owing to dry, hot weather. The spotted species is noticeably more abundant than the other two. A dipterous parasite has been reared from the spotted and striped species. From small sample rearings approximately 3 percent of the adults were parasitized.

Mississippi. C. Lyle (June 24): Adults of D. duodecimpunctata and D. vittata were feeding on watermelons in Oktibbeha County on May 25 and in Attala County on June 9. Complaints of injury to cantaloups, cucumbers, and watermelons received from Forrest County on May 17, Rankin County on June 9, Covington County on June 13, and Lauderdale County on June 22.

Minnesota. A. G. Ruggles and assistants (June 19): Striped cucumber beetle very abundant in Anoka County, especially on melon plants.

Missouri. L. Haseman (June 24): In central Missouri very little evidence of either the striped or spotted cucumber beetles on cucurbits. In southeastern Missouri damage to melons moderately light in June.

MELON APHID (Aphis gossypii Glov.)

Connecticut. N. Turner (June 15): At Cheshire $\frac{1}{2}$ acre of early squash very heavily infested, and many plants killed. Few aphids found in several other nearby fields.

Missouri. L. Haseman (June 24): Some reports of heavy damage to watermelons in southeastern Missouri. No damage observed in central Missouri.

Oklahoma. R. G. Dahms (June 18): Some damage to melons in Grady and Stephens Counties.

PICKLEWORM (Diaphania nitidalis Stoll)

South Carolina. J. G. Watts (June 15): First specimen observed at Blackville on June 15, when a half-grown larva was found in a cucumber. Taken since that time in cantaloups and squash. From a field examination on June 19 about 0.5 percent of small cantaloups were infested.

Georgia. F. W. Roddenbury (June): Noticed at Cairo about June 1.

Florida. F. W. Roddenbury (June): First observed at Madison about May 25.

ASPARAGUS

ASPARAGUS BEETLES (Crioceris spp.)

Massachusetts. A. I. Bourne (June 26): C. asparagi L. subject of many complaints throughout the State and in southern Hampden County apparently very abundant. Reports elsewhere indicated it as of normal abundance.

New York. N. Y. State Coll. Agr. News Letter (June 5): In Suffolk County both species of asparagus beetles very abundant and laying eggs during the last week. (June 12): In Nassau County larvae and adults of C. asparagi very abundant on asparagus plantings. Asparagus beetles moderately abundant in Albany County and prevalent on lowland bods in Delaware County on May 24 and eggs being laid by May 29. In western New York asparagus beetles have been laying eggs for some time in Chautauqua County and have been numerous and destructive, where not controlled, in Orleans County.

Pennsylvania. H. E. Hodgkiss (June 22): C. asparagi and C. duodecimpunctata L. fairly abundant and eggs plentiful on May 23.

South Carolina. J. G. Watts (June): C. asparagi has not developed as rapidly during the month as was expected. Abundance only slightly more than that of last month. A dipterous parasite reared from larvae collected on May 18. This is about 2 months earlier than the first parasites were taken last year at Blackville.

Michigan. R. Hutson (June 24): C. asparagi reported from Conklin, Royal Oak, and East Lansing.

Washington. A. E. Lovett (June 6): Previous reports of C. asparagi attacking fields around Kent and Auburn, King County, now confirmed.

CELERY

APHIDS (Aphidae)

New York. N. Y. State Coll. Agr. News Letter (May 29): One very severe infestation of aphids (probably melon aphid) on sash celery in Orange County.

TARNISHED PLANT BUG (Lygus pratensis oblineatus Say)

Massachusetts. A. I. Bourne (June 26): On June 22 complaint received of rather serious damage to celery in the market-garden section in the eastern part of the State.

ONIONS

ONION THRIPS (Thrips tabaci Lind.)

Connecticut. N. Turner (June 19): Severe infestation at Mount Carmel Farm and some small farms in New Haven County. Large fields in Hartford County show little infestation now.

ONION MAGGOT (Hylemya antiqua Meig.)

Wisconsin. C. L. Fluke (June 24): Quite general in southeastern counties.

Oregon. R. G. Thompson (June 20): Attack more general than usual in the Willamette Valley.

RHUBARB

A TERMITE (Reticulitermes tibialis Banks)

Nebraska. M. H. Swenk (June 20): Reported as destroying rhubarb plants in Sherman County on June 5.

LETTUCE

SIX-SPOTTED LEAFHOPPER (Macrosteles divisus Uhl.)

New York. N. Y. State Coll. Agr. News Letter (June 5): Abundant on lettuce on Long Island and in Genesee County.

SWEETPOTATO

IMBRICATED SNOUT BEETLE (Epicaerus imbricatus Say)

Alabama. J. M. Robinson (June 21): On sweetpotatoes at Centerville and Athens.

HOPS

STRAWBERRY FRUITWORM (Cnephasia longana Haw.)

Washington. L. G. Smith (June 20): Omnivorous leaf tier working into heads of hops at Roy, King County, causing them to bend over, or "crook." None observed in the locality before this season.

STRAWBERRY

WEEVILS (Brachyrhinus spp.)

Michigan. R. Hutson (June 24): B. ovatus L. troublesome in houses at Traverse City.

Utah. G. F. Knowlton (June 8): B. ovatus and B. rugosostriatus Goeze adults are maturing and some emerging in Cache and Utah Counties.

G. F. Knowlton and D. L. Bischoff (June 10): Adults of B. ovatus abundant on strawberries at Willard. A number of raspberry patches being damaged at Orem.

Washington. L. G. Smith (June 13): Adults of B. ovatus and B. sulcatus F. are emerging in the Spokane area. After 3 years' absence from Franklin County, the weevil has appeared again near Pasco, adults of B. ovatus having been found.

STRAWBERRY LEAF ROLLERS (Tortricidae)

Ohio. T. H. Parks (June 21): Cacoecia obsoletana Walk. reported as damaging strawberries in Hamilton County.

Nebraska. M. H. Swenk (June 20): Ancylis comptana Froel. reported as damaging leaves of strawberry plants in Jefferson County on May 27.

Washington. B. J. Landis and W. W. Baker (June 16): Larvae of a leaf roller extremely abundant in an abandoned strawberry field near Winslow, Bainbridge Island, on June 13. A few larvae found nearby in producing fields.

WHITEFLIES (Aleurodidae)

Massachusetts. A. I. Bourne (June 26): Several complaints received of abundance of a species of whitefly on foliage of strawberries, and these were found in moderate abundance on plantings at Amherst.

A ROOT WORM (Graphops pubescens Melsh.)

Indiana. J. J. Davis (June 21): Strawberry root worm destructive to strawberry in southern Indiana.

BEETS

SPINACH LEAF MINER (Pegomya hyoscyami Panz.)

Connecticut. N. Turner (June 19): Small fields of early beets heavily infested and many plants killed. Some damage to early spinach.

SPINACH CARRION BEETLE (Silpha bituberosa Lec.)

Montana. H. B. Mills (June 12): Attacking small beets at Cascade, Pondera County.

TOBACCO

TOBACCO FLEA BEETLE (Epitrix parvula F.)

North Carolina. W. A. Shands (June 24): Infestations and injury to newly set tobacco unusually light in southeastern and north-central North Carolina.

Georgia. H. I. Borders (June 16): Tobacco flea beetles have appeared in several localities in southern Georgia. Tobacco damaged to some extent. Control measures have been recommended and are being used against them.

HORNWORMS (Protoparce spp.)

North Carolina. W. A. Shands (June 24): Larvae more abundant, and injury more widespread and severe to tobacco than observed this early in the season during the last 4 years in southeastern, central, and north-central North Carolina.

Kentucky. W. A. Price (June 23): Small larvae of the tobacco hornworm began appearing on tobacco the second week in June at Lexington.

Tennessee. L. B. Scott (June 21): P. quinquemaculata Haw. and P. sexta Johan. more abundant on tobacco in north-central Tennessee than for several years.

POTATO TUBER WORM (Gnorimoschema operculella Zell.)

Florida. F. S. Chamberlin (June 13): Splitworm more abundant in shade- and sun-grown tobacco than in the last several years in Gadsden County.

CORN ROOT WEBWORM (Crambus caliginosellus Clem.)

Tennessee. L. B. Scott (June 21): Moderately abundant in many tobacco fields in north-central Tennessee but, with few exceptions, infestation not severe. Damage moderate in fields not cultivated in 1937 and 1938.

A WEBWORM (Acrolophus popeanellus Clem.)

Tennessee. L. B. Scott (June 21): This webworm ordinarily causes very little damage to tobacco in north-central Tennessee, but is moderately abundant this year. One 3-acre field found to be 80-percent infested, necessitating replanting of the field. Many more than usual are present.

TOBACCO THRIPS (Frankliniella fusca Hinds)

Florida. F. S. Chamberlin (June 6): Much less abundant than normal in Gadsden County, this condition apparently owing to the heavy, frequent rains.

C O T T O N I N S E C T S

BOLL WEEVIL (Anthonomus grandis Boh.)

South Carolina. F. F. Bondy and C. F. Rainwater (June 10): Boll weevils still emerging from cages at Florence. Total of 740 emerged during May and only 216 during May of 1938. Weevils not as numerous in the fields of Florence County as last year, there being 1 weevil for 348 plants, as compared to 1 weevil for 209 plants in 1938. A number of egg punctures found.

F. F. Bondy, C. F. Rainwater, and F. F. Bibby (June 17): Flight screen catches in Florence County indicate that weevils are still emerging. A total of 199 taken from trap crop in June 1938, and to date 464 taken from trap crop of June 1939. Number of weevils found in fields about same as in 1938. (June 24): Weevil counts in fields of Florence County showed check plots 4.9-percent infested; presquare and early treated plots 2.7-percent infested, about the same as in 1938. A number of fields found with 10-percent infestation and higher are now being treated. A large number of first-generation larvae in squares now falling to ground.

Georgia. P. M. Gilmer, et al. (June 3): Infestation apparently about at the peak now in Dooly, Berrien, Tift, Cook, Lowndes, and Echols Counties. No increase noted except in occasional fields. Infestation spotted, very heavy in some fields and rather light in others, apparently correlated with distance from last year's cotton. Infestation apparently somewhat lighter than last season. (June 10): Very heavy populations of hibernating brood observed in Tift, Cook, Berrien, and Lowndes Counties. Untreated fields often show considerably above 10-percent infestation, averaging over all fields close to 5 percent. Generally spring infestation from hibernating weevils that are actually ovipositing is about average, or a little heavier than average throughout the whole area involved. Reports from northern Georgia indicate a severe infestation, heavier possibly than last year. Hibernators reported as hand-collected at the rate of approximately 200 per acre on untreated cotton. Treated cotton adjacent reported to carry weevils at the rate of about 1 weevil per 2 acres.

P. M. Gilmer (June 17): Injury mounting in untreated fields in Tift, Berrien, and Cook Counties, and to some extent in treated ones. Weevil populations still rather high and percentage of injured squares somewhat on the increase. Moist weather apparently favorable to old adults and they are still present, while the first-brood population is beginning to appear. (June 24): Infestation decreasing as the interbrood period appears in Cook, Berrien, Tift, and Lowndes Counties. Total infestation reduced to considerably below half that of last week. First-generation weevils emerging in considerable numbers and peak expected next

week. Damage indicated in the coastal regions from first-brood weevils, as infestation rose sharply in that section last week. Upper coastal plain section shows no indication of extensive oviposition by this brood.

L. W. Morgan (June 23): Owing to hot and dry weather in Lowndes and Echols Counties, there has been almost no damage. One newly emerged weevil found.

Florida. C. S. Rude (June 10): Of 26 fields inspected in Alachua, Putnam, Marion, Gilchrist, and Union Counties all found infested, except 3 in Putnam County. Infestation highest in Alachua County, 42.1 percent. Infestation in Marion, Union, and Gilchrist Counties much higher than last year.

L. C. Fife and C. S. Rude (June 17): During the week 24 treated and untreated fields examined in Lake, Marion, Alachua, Putnam, Union, and Gilchrist Counties. No infestation found in Putnam County, but in the other counties it ranged from 0 to 88.6 percent, the latter in Alachua County. (June 24): Infestation has increased in the above counties during the last week. Light infestation found in 1 field in Putnam County. Infestation somewhat heavier than a year ago.

Alabama. J. M. Robinson (June 21): More abundant than usual in cotton-fields at Auburn; 5 to 6 found per 200 plants. Also abundant in Lee and Macon Counties.

Mississippi. C. Lyle (June 24): Reported as abundant in most cotton-fields in the northwestern, central, and southwestern parts of the State.

State Plant Board (June 5): North-central section of the State most heavily infested of the counties examined; no reports received from the southern half. Highest infestation recorded from Webster, Attala, Holmes, and Choctaw Counties. (June 12): Generally abundant throughout the north-central and eastern sections of the State, 24 out of 25 farms being infested in Oktibbeha County. Most Delta counties and those along the Tennessee line showed very few or no weevils, the usual condition at this time. (June 19): Heaviest infestations in north-central Mississippi in Lee, Monroe, Holmes, Yalobusha, and Grenada Counties. (June 26): Infestation rose during the last week. On farms where squares were large enough to be punctured average infestation was 22 percent, as compared with 14½ percent last week. Heaviest infestations in Monroe and Chickasaw Counties. Generally abundant throughout the rest of the State.

E. W. Dunham and assistants (June 3): On 1,000 plants examined on a farm in Washington County, 22 weevils were found. This is the date on which weevils were reported in 1935-1938,

inclusive. Weevils found 1 week earlier this year. (June 17): On a treated check plot only a 10-percent infestation found. (June 24): Weevils found on 6 farms in Washington County this week totaled 120, as compared with 124 last week; 218 in 1938; 39 in 1937; and 2 in 1936.

R. L. McGarr, et al. (June 3): Inspection of 1,400 cotton plants in 7 fields in Oktibbeha County this week showed 1.9 weevils per 100 plants, as compared with 2.5 in 1938. (June 17): In Oktibbeha and Lowndes Counties average number of weevils per 100 plants from 6,400 cotton plants inspected in 26 fields this week was 1.3, as compared with 1.1 at this time last year. (June 24): During the week 3,200 squares examined in 12 fields in Oktibbeha County showed an average infestation of 24.5 percent, as compared with 21.6 percent at this time last year. Infestation in different fields ranged from 10 to 36.7 percent.

Louisiana. R. C. Gaines and assistants (June 3): Examinations to determine population in cotton fields at Tallulah, Madison Parish, for the period May 31 to June 6 showed 273 weevils on 36,000 plants, as compared with 306 weevils on 50,000 plants in 1938. (June 17): Quite a few squares punctured in some fields of older cotton in Madison Parish. (June 24): In 30,200 squares examined in Madison Parish during the week, 1,536 punctured squares were found, an average of 5.1 percent. Records made on fields most likely to be heavily infested. Square infestation in these fields ranged from 0.5 to 18.7 percent. No control used in any of these fields. In 34 fields 24 weevils taken in 5,800 sweeps of the net. Initial population at Tallulah slightly higher in 1939 than in 1938.

Texas. F. L. Thomas (June 20): Increasing and now causing damage in half of the 26 fields examined in Austin, Colorado, Fayette, Waller, and Wharton Counties, southeastern Texas, and in 18 of 32 fields examined in Bastrop, Brazos, Burleson, Grimes, Milan, and Williamson Counties, south-central Texas.

R. W. Moreland (June 10): Total number of weevils removed from hibernation cages in Brazos County amounts to 650, or 2.6 percent.

C. R. Parencia and S. E. Jones (June 3): A few found in Calhoun County, a few squares in older cotton being punctured. (June 24): Generally scarce in Calhoun County but doing considerable damage in some fields. Control measures used by several growers this week. Infestation on cooperative variety tests on June 20 averaged 2.6 percent of the squares punctured.

K. P. Ewing and W. S. McGregor (June 3): In McLennan County 21 weevils were found on 3,700 cotton plants in 22 fields, located both in the river bottom and in the open-prairie section.

(June 10): Only 6 weevils found on 8,500 cotton buds checked in 27 fields. Decrease due to cotton beginning to fruit and the weevils' leaving the buds. (June 24): In 1,000 squares counted in 4 fields in McLennan and Falls Counties, 29 punctured squares found, averaging 2.9 percent.

Oklahoma. C. F. Stiles (June 21): Showing up in fairly large numbers throughout southeastern Oklahoma.

A WEEVIL (Epicaerus formidosus Boh.)

Florida. J. R. Watson (June 21): Specimens submitted. Reported as doing serious damage to cotton at Valrico, Hillsborough County.

A WEEVIL (Conotrachelus erinaccus Lec.)

Tennessee. S. Marcovitch (June 10): Small weevil found injuring buds of very young cotton in Knoxville. (Det. by L. L. Buchanan.)

BOLLWORM (Heliothis armigera Hbn.)

South Carolina. F. F. Bondy, C. F. Rainwater, and F. F. Bibby (June 17): Several adults caught in Florence County, but no damage found. (June 24): A few adults found.

Georgia. P. M. Gilmer (June 17): Present in Tift, Berrien, and Cook Counties, but apparently little damage to squares or bolls.

Alabama. J. M. Robinson (June 21): On cotton at Troy and Hartselle.

Mississippi. E. W. Dunnar, et al. (June 24): Three larvae found in squares in Washington County.

Texas. C. R. Parencia and S. E. Jones (June 3): A few eggs found during the week in Calhoun County; 7 eggs found on 100 terminal buds in a field. A few small larvae observed feeding on terminal buds. (June 24): Only 2 eggs observed this week

PINK BOLLWORM (Pectinophora gossypiella Saund.)

Texas. H. S. Cavitt (June 3): Total moth emergence this week at Presidio only 35, as compared to 104 last week.

A. J. Chapman (June 17): A few moths continued to emerge from hibernation this week at Presidio. Records thus far indicate a lower survival this year than last. (June 24): Of 8,639 blooms examined in cotton planted in Presidio on March 28, 2,136, or 24.72 percent, were infested. A total of 1,897 blooms examined in cotton planted on April 20, and 282, or 14.86 percent, were infested. Bloom-infestation records made in 7 fields in Presidio County during the week showed infestations ranging from 0 to 1.6 percent.

COTTON LEAF WORM (Alabama argillacea Hbn.)

Texas. C. R. Parencia and S. E. Jones (June 10): One found on a farm 5 miles southwest of Port Lavaca on June 9, being the first observed since May 17. (June 24): Several young larvae found on cotton on a farm 4 miles northwest of Port Lavaca on June 22.

COTTON FLEA HOPPER (Psallus seriatus Reut.)

South Carolina. F. F. Bondy, C. F. Rainwater, and F. F. Bibby (June 24): A few found in Florence County but no damage.

Georgia. P. M. Gilmer, P. A. Glick, and R. T. Harwell (June 3): Present in the north-central area of Deely, Berrien, Tift, Cook, Lowndes, and Echols Counties, but no damage being done. Apparently more prevalent about Cordole than west or north of the town.

Mississippi. C. Lyle (June 24): Reported as having done light damage to cotton in Holmes and Quitman Counties during the first half of June.

R. L. McGarr and assistants (June 3): On the terminal buds of 1,400 cotton plants this week in Oktibbeha County an average of 0.9 adult per 100 buds was found, as compared with 3.2 adults and 0.4 nymph found in 1938 on 100 buds, from 12,900 buds inspected in 43 fields.

E. W. Dunnan, et al. (June 24): In Washington County on 3,912 seedling cotton plants, 66 nymphs were found, or 1.69 nymphs per 100 plants.

Louisiana. R. C. Gaines and assistants (June 24): In 34 fields in Madison Parish 26 adults were taken in 5,800 sweeps of the net.

Oklahoma. C. F. Stiles (June 21): Recent field examinations in southern and eastern Oklahoma show cotton flea hopper present in damaging numbers in all fields examined on black-land prairie.

Texas. F. L. Thomas (May 31): Numbers in cotton slowly increasing in southern Texas. Average infestation in central Texas well below danger point, although as high as 30 per 100 terminals were found in some fields of early planted cotton. Hatching of overwintered eggs increased remarkably during the last week. (June 7): Continuing to increase in southern Texas. Found causing considerable damage in 5 fields of the Robstown area. In other parts of Mueces County and in Calhoun County slight increases in population found but little injury apparent. In central Texas hatching of overwintered eggs decreased considerably. Total hatch prior to June 1 considerably below normal. In McLennan County examinations in 22 fields showed an average of 2 per 100

terminal buds. (June 12): Damage caused in fields near Robstown, Corpus Christi, Odem, and Gregory, in Nueces and San Patricio Counties. Increasing in Calhoun County and beginning to appear in injurious numbers in fields near Coupland and Taylor, Williamson County. Absent or in small numbers only in 18 fields examined in Austin, Bastrop, Burleson, Colorado, and Waller Counties.

K. F. Ewing and W. S. McGregor (June 3): In 22 cotton fields in McLennan County 3,700 terminals showed an average of 1.62 nymphs and 0.58 adult, or a total of 2.2 per 100 buds. (June 24): In McLennan and Falls Counties an average of 5.1 adults and 11.6 nymphs, or a total of 16.7 per 100 buds, found on 6,200 terminal buds examined in 16 fields. Average last week was 11.9 per 100 buds.

C. R. Parencia and S. E. Jones (June 3): Only a few fields injured in Calhoun County, despite an average of 10.2 adults and 27 nymphs per 100 buds on 5,200 terminal buds in 18 fields. Infestation found generally high on May 31 in the vicinity of Robstown and Corpus Christi, coastal bend area. (June 24): Inspection of 4,400 terminal buds in 9 fields in Calhoun County showed an average of 6.5 adults and 40.9 nymphs, per 100 buds, as compared with an average of 9.9 adults and 37.9 nymphs last week.

COTTON STAINER (Dysdercus suturellus H. S.)

Florida. L. C. Fife and C. S. Rude (June 3): Numerous in some old fields where stalks were not destroyed in Marion, Union, Alachua, Gilchrist, Putnam, and Lake Counties.

THRIPS (Thysanoptera)

Texas. F. L. Thomas (June 20): Practically all cotton in the vicinity of grainfields in north-central and northern Texas injured to some extent, owing to the occurrence of thrips. Last week cotton in north-central Texas had begun to recover from damage.

MISCELLANEOUS COTTON INSECTS

* Arizona. T. P. Cassidy (June 13): Between May 25 and June 7 at Buckeye, seedling cotton on 35 acres was destroyed by three species. Tenebrionid beetles, Blapstinus spp., and ground bugs, Pangaeus bilineatus Say, reported as numerous in cotton and causing serious damage, when a brood of beet armyworms (Laphygma exigua Hbn.) hatched out and completely destroyed the stand on 35 acres and damaged the stands in several other fields.

F O R E S T A N D S H A D E - T R E E I N S E C T S

CANKERWORMS' (Geometridae)

Connecticut. P. Wallace (June 21): The fall cankerworm (Alsonphila ponetaria Harr.) is relatively scarce, heavy feeding having been noticed in very limited areas in a few localities only.

New Jersey. M. D. Leonard (June 15): Spring and fall cankerworms not at all abundant at Ridgewood, and very little evidence of feeding on oak and maple noticed. Apparently about the same as last year, or even a lighter infestation.

C. H. Hoffmann (May 24): About an acre of woodland at Millburn showed heavy feeding by the spring cankerworm (Palaecrita vernata Peck).

Ohio. T. H. Parks (June 21): Spring and fall cankerworms, which were so abundant during May, disappeared during the first week in June.

Indiana. J. J. Davis (June 21): Both fall and spring cankerworms very abundant in the northern half of the State, especially the northeastern area from Anderson north. Elms and untreated apples attacked most severely.

Iowa. H. E. Jaques (June): Noted in southern Iowa in Johnson, Washington, Clark, Wapello, and Decatur Counties.

Missouri. A. C. Burrill (June 25): Cankerworms webbing leaflets and feeding in scattered groups of two or three on ~~tree-of-heaven~~ in Jefferson City.

North Dakota. J. A. Munro (June 22): Spring cankerworms abundant in the vicinity of Minot. Lighter infestations at Park River, Grand Forks, and northwards.

Nebraska. M. H. Swenk (June 20): Report of some injury to shade trees by spring cankerworm received from Redwillow County on June 8.

ELM SPANWORM (Ennomos subsignarius Hbn.)

Connecticut. G. H. Plumb (June): Young larvae were found feeding on elm at Monroe on May 26. On June 14 larvae were spinning down from foliage and pupating. Stripping not nearly so extensive as in 1938; most larvae found around periphery of 1938 infestation center. As in 1938, tulip poplar was not attacked.

A GEOMETRID (Physostegania pustularia Guen.)

Pennsylvania. T. L. Guyton (June 17): Adults numerous in woodland at McAlisterville.

FOREST TENT CATERPILLAR (Malacosoma disstria Hbn.)

Vermont. H. L. Bailey (June 24): Generally less abundant than last year in most of the State. No defoliation noted in Orange and northern Windsor Counties, where infestation was severe in 1937-38. Heavy outbreak reported from Grafton, northern Windham County, and Chester, southern Windsor County.

Connecticut. P. Wallace (June 21): Caterpillars fairly common throughout New Haven and Litchfield Counties, but no serious defoliation noted. Not so abundant as last year.

New York. N. Y. State Coll. Agr. News Letter (June 12): In Delaware County, eastern New York, maple worms that have defoliated tremendous areas of hard maples on the mountain side have been feeding on cauliflower in several fields.

New York Herald Tribune (June 18): A severe outbreak in two widely separated areas of the State announced today. Observations indicate that considerable defoliation is present in the Harlem Valley section in the towns of Austerlitz, Hillsdale, and Chatham, and spotted outbreaks, where some defoliation appears, have been noted in Cortland, Chenango, Otsego, Oneida, Herkimer, and Schoharie Counties. Most severe part of outbreak in Delaware County, heavy defoliation being quite general over the entire county.

New Jersey. M. D. Leonard (June 15): Not at all abundant this spring at Ridgewood and very little evidence of feeding noticed on oak and maple.

Pennsylvania. T. L. Guyton (June 6): Causing defoliation in areas in Susquehanna County. Evident from Hop Bottom to New Milford to Montrose. Larvae seemed to be about full grown. In great clusters on trunks of maple, elm, and other forest and shade trees.

North Dakota. J. A. Munro (June 22): Very abundant in the vicinity of Elbowoods, McLean County, and the adjoining section of Dunn County.

Montana. H. B. Mills (June 12): Abundance on apple and shade trees at Bozeman slightly more than average. M. fragilis Stretch considerably more abundant on wild cherry and rose than usual in the Gallatin Valley.

Washington. S. M. Dohanian (June 15): Poplars, willows, hawthorns, wild apples, and several other species of trees growing in the swampy lands bordering on the Columbia River between Kalama and Longview, a distance of 8-10 miles, were entirely defoliated. Most of the larvae apparently full grown, and some had formed cocoons. Some trees on the west bank of the river (on the

Oregon side) were also defoliated, probably by the same pest.

W. W. Baker and B. J. Landis (June 16): Fairly abundant on apple near Puyallup, early in June, and most larvae had succumbed to disease by June 16. An occasional larva of M. disstria was found with M. pluvialis Dyar near Skykomish on June 11 and on Vashon Island late in May.

FALL WEBWORM (Hyphantria cunea Drury)

Connecticut. S. W. Bromley (June 24): First brood of fall webworm, H. textor Harr., unusually abundant in southwestern Connecticut.

Maryland. E. N. Cory (June 13): Young specimens of fall webworm noted on pear at Baltimore.

Georgia. O. I. Snapp (June 6): Nests of half-grown fall webworms on apple trees were observed at Fort Valley on June 6.

Tennessee. G. M. Bentley (June 20): Generally bad throughout the State. First appearance noticed early in June. Many reports received. Host plants varied, the predominating ones observed having been maple, sycamore, Lombardy poplar, elm, and mulberry.

Mississippi. C. Lyle (June 24): Reported as present on some fruit and forest trees in Clay, Lowndes, Noxubee, Oktibbeha, and Webster Counties; on pecan trees in Humphreys County and in the southeastern part of the State.

GYPSY MOTH (Portheia dispar L.)

Massachusetts. M. D. Leonard (June 20): On Cape Cod a heavy infestation reported, especially in the locality of Harwich. Larvae about three-fourths grown and control measures being applied.

VICEROY (Basilarchia archippus Cram.)

Minnesota. A. G. Ruggles and assistants (June 19): Moderately abundant on poplar at Minneapolis on May 14.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Pennsylvania. T. L. Guyton (June 20): Collected on sassafras in a forest near Laflin on June 14. (Det. by H. Morrison.)

PUTNAM'S SCALE (Aspidiotus ancylus Putn.)

Pennsylvania. S. W. Bromley (June 24): Found infesting Ohio buckeye in the Philadelphia area.

OYSTERSHELL SCALE (Lepidosaphes ulmi L.)

Maryland. E. N. Cory (June 7): Infesting privet at Baltimore.

Indiana. J. J. Davis (June 21): Killing branches of ash trees at La Fayette. The young had hatched when observed on June 16.

Nebraska. M. H. Swenk (June 20): American elm trees in Redwillow County reported as attacked on June 8.

PERIODICAL CICADA (Magicicada septendecim L.)

Pennsylvania. T. L. Guyton (June 21): On June 13 the presence of cicada noticed in moderate appearance on State Highway 83 between Schubert and Summit Station, near the crest of the mountain, probably in Schuylkill County. This is the only record for this year.

Maryland. E. N. Cory (June 15): One cast skin brought from near College Park on June 12; and it has been reported that there were many cast skins in an orchard at Hancock, the first being taken on June 9.

P. Knight (June): Periodical cicada records: At College Park, a cast skin; heard at Branchville, Beltsville, and near Plum Point; egg punctures observed at Beltsville and Chevy Chase. G. B. Vogt reports having heard the insect at Catonsville. All records on sound believed unquestionable as to identity.

Virginia. W. J. Schoene (June 19): Brood 13 heard in an orchard at Stuart, Patrick County, and at Grahams Forge, Wythe County; cast skins collected at both places. Also heard in an orchard $2\frac{1}{2}$ miles northeast of Blacksburg, and there were 5 or 6 cast skins on each tree in this section of the orchard. Reported as heard in an orchard in the vicinity of Roanoke. (June 22): Three cast skins collected in an orchard about 1 mile south of Glenvar on June 20. A few specimens collected in an orchard several miles south of Chilhowie on June 21. Report of cicada cast skins as present during the last several weeks in considerable numbers in scrub land 2 or 3 miles east of Blacksburg.

A. M. Woodside (June 17): A few heard in Augusta County during the latter part of May, and two specimens captured.

Ohio. J. S. Houser (June 16): Songs of cicadas heard on June 8 at Brecksville, Cuyahoga County, and on June 14 at Canton, Stark County.

Indiana. J. J. Davis (June 21): Abundant in Lake, La Porte, and Porter Counties, in northwestern Indiana.

Illinois. W. P. Flint (June 20): The cicada appeared a little late, the first insects being seen or heard on May 29 and 30. Very general and abundant, covering the area of the State north of a line drawn approximately from Keokuk, Iowa, to Danville.

N. F. Howard (June 18): In the vicinity of Chicago Heights, not far from the Indiana line, the cicada was so abundant that the characteristic calls could be heard in an automobile. A specimen was taken in the city.

H. R. Painter (June 19): Heavy drumming along Federal Highway No. 30 between Chicago Heights and Plainfield on June 16.

Wisconsin. C. L. Fluke (June 24): In large numbers in Richland, Crawford, Rock, and Dodge Counties. Lesser numbers in all southern counties. Began emerging about June 1.

Iowa. C. J. Drake (May 31): Reported this morning as emerging in the eastern part of the State at Cedar Rapids, Linn County.

F. E. Krause (June 10): Fairly numerous in trees in Jackson County.

ASH

ARIZONA ASH TINGID (Leptocypha minor McA.)

California. C. S. Morley (June 12): Showing up and doing some injury to ash trees in Kern County.

BEECH

BEECH WOOLLY APHID (Phyllaphis fasci L.)

Connecticut. S. W. Bromley (June 24): Abundant as usual on ornamental beech trees, particularly purple and cut-leaf varieties, in the southwestern area.

BIRCH

BRONZED BIRCH BORER (Agrilus anxius Gory)

Indiana. J. J. Davis (June 21): Damaging trees at Indianapolis on June 17.

BIRCH LEAF MINER (Fenusa pusilla Klug)

Ohio. J. S. Houser (June 2): Attacking white birch at Hudson.

APHIDS (Aphididae)

New Jersey. M. D. Leonard (May 29): A few alates of Calaphis betulaecolens Fitch found on birch at Ridgewood along with the much more abundant Euceraaphis betulae Koch.

CHOKECHERRY

CHOKECHERRY MIDGE (Contarinia virginianiae Felt)

Nebraska. M. H. Swenk (June 20): Report from Nemaha County on May 31 as infesting fruits of chokecherry.

BOXELDER

BOXELDER BUG (Leptocoris trivittatus Say)

Indiana. J. J. Davis (June 21): Immature bugs abundant on boxelder in the northern half of the State.

Nebraska. M. H. Swenk (June 20): Complaints of annoyance around trees and bushes and along sidewalks from Cedar and Douglas Counties on June 5 and 14, respectively.

Kansas. H. R. Bryson (June 24): Large numbers of young bugs found in and near Manhattan.

Utah. G. F. Knowlton (May 27): Extremely abundant in some places, nymphs being present in masses, varying in size from approximately one-fourth grown to nearly mature.

BOXELDER APHID (Periphyllus negundinis Thos.)

Utah. G. F. Knowlton (June 8): Extremely abundant on some trees at Riverton.

A LEAF ROLLER (Gracilaria sp.)

Utah. G. F. Knowlton (June 8): Boxelder leaf rollers are stripping boxelder trees at Holladay.

CATALPA

CATALPA SPHINX (Coratomia catalpae Bdv.)

Maryland. Gertrude Myers (May 31): Larvae are appearing on the catalpa trees along Avery Road east of Rockville.

Ohio. E. W. Mendenhall (June 23): Making its appearance on catalpa in Columbus, Springfield, and central Ohio.

CYPRESS

A CYPRESS MINER (Argyresthia sp.)

Washington. W. W. Baker (June 16): Specimens of a cypress miner

collected on Monterey cypress at Point Defiance, were brought in early in May. The larvae were extremely abundant and feeding gave the trees a scorched appearance. Adults began to emerge about June 12.

ELM

ELM LEAF BEETLE (Galerucella xanthomelaena Schr.)

Vermont. H. L. Bailey (June 24): First adult noted at Winooski, Chittenden County, northwestern area, on May 17. Eggs, newly hatched larvae, and adults noted at the same place on June 15. Infestation severe.

Connecticut. P. Wallace (June 21): Not at all common over most of the State.

New York. R. E. Horsey (June 20): A number of young larvae found on elms at Rochester, where it is a serious pest.

Pennsylvania. H. E. Hodgkiss (June 22): Adults abundant in Philadelphia County on May 24. No eggs observed.

Maryland. E. N. Cory (June 8): On elm at Hagerstown.

Ohio. E. W. Mendenhall (June 23): Injurious on English and American elms in Worthington on street trees and private property.

Indiana. J. J. Davis (June 21): Defoliating elms at New Albany on June 15 when the larvae were nearly full grown.

Kentucky. W. A. Price (June 23): Larvae abundant on Chinese elms the first week of June at Lexington.

California. C. S. Morley (June 12): Has completely defoliated many untreated elm trees in Kern County.

SMALLER EUROPEAN ELM BARK BEETLE (Scolytus multistriatus Marshan)

Connecticut. P. Wallace (June 21): Much more abundant on elm in New Haven County than at any time since 1934.

NATIVE ELM BARK BEETLE (Hylurgopinus rufipes Eich.)

Connecticut. P. Wallace (June 21): Much more abundant in New Haven County on elm than at any time since 1934.

ELM FLEA BEETLE (Altica ulmi Woods)

Massachusetts. A. I. Bourne (June 27): W. B. Becker reports hibernating adults from eight localities in western Massachusetts.

Connecticut. S. W. Bromley (June 24): Reported from Lakeville in localized areas as causing more damage than elm leaf beetle.

ELM LEAF MINER (Fenusa ulmi Sund.)

Vermont. H. L. Bailey (June 24): Found abundant at Malletts Bay, Chittenden County, Champlain Valley, on American elm on June 15.

Connecticut. S. W. Bromley (June 24): Produced partial defoliation this month on red elms in the Stamford area.

WOOLLY ELM APHID (Eriosoma americanum Riley)

Massachusetts. A. I. Bourne (June 27): On elm leaves from Sherborn on June 15.

Maryland. E. N. Cory (May 31): On elm in Upper Marlboro.

North Dakota. J. A. Munro (June 22): Moderately abundant and generally distributed throughout the State.

Nebraska. M. H. Swenk (June 20): Attacking Chinese elm trees in Morrill County on June 16.

D. B. Whelan (June 6): Present at Lincoln where trees have been pruned.

WOOLLY APPLE APHID (Eriosoma lanigerum Hausm.)

Vermont. H. L. Bailey (June 24): Rosette aphid extremely abundant on American elm at Malletts Bay, Chittenden County, Champlain Valley, on June 15. Many rosettes forming on trees, and great numbers of winged adults on bark.

Tennessee. G. M. Bentley (June 20): Occurring on elms at Memphis, Shelby County, and Clinton, Anderson County, on May 25 and June 1, respectively.

Montana. H. B. Mills (June 12): Many elm trees in Bozeman badly injured. Fall migrants were exceptionally abundant last September.

EUROPEAN ELM SCALE (Gossyparia spuria Mod.)

Maryland. E. N. Cory (May 31): On elm at Walkersville.

Ohio. E. W. Mendenhall (June 13): Numerous on elm trees along streets in Springfield.

Indiana. J. J. Davis (June 21): Was abundant on elm throughout the central part of the State.

Iowa. H. E. Jaques (June); Noted in Jasper County.

Nebraska. M. H. Swenk (June 20): American elm trees in Cheyenne and Lincoln Counties reported as infested on June 3 and 9, respectively.

Idaho. R. A. Fisher (June 9): Many elm trees generally over the State severely damaged.

Utah. G. F. Knowlton (June 13): Is damaging trees at Salt Lake and Logan.

HICKORY

HICKORY BARK BEETLE (Scolytus quadrispinosus Say)

Maryland. R. A. St. George (June 8): About 12 or 15 hickory trees containing broods in Bethesda are in a dead and dying condition. Some emergence already but most of brood in mature larval stage. Others as smaller larvae, or pupae, and maturing adults. A few trees with dead tops and their partially developed foliage on mid-crown with base normal. Some trees with their green tops only. Ambrosia beetles severely attacking parts of the trees. Located in Greenwich Forest area, the area about 5 years old. Cutting streets, excavating for cellars, and a prolonged deficit of rain may have helped weaken the trees so that they became attractive to the beetles.

HICKORY PHYLLOXERA (Phylloxera caryaecaulis Fitch)

New York. R. E. Horsey (June 20): Abundant at Rochester on several native pignut and oval-fruited hickories. One large pignut had lost about half its leaves and was badly disfigured.

LARCH

LARCH CASEBEARER (Coleophora laricella Hbn.)

Massachusetts. A. I. Bourne (June 27): W. B. Becker noted the insect on larch from Salisbury on May 15.

New York. R. E. Horsey (June 20): Considerable damage on several species of larch at Rochester.

LARCH SAWFLY (Lygaconematus erichsonii Htg.)

Pennsylvania. H. E. Hodgkiss (June 22): Larvae abundant in Lackawanna County.

WOOLLY LARCH APHID (Chermes strobilobius Kltb.)

New York. R. E. Horsey (June 20): More numerous than usual on several

species of larch at Rochester.

New Jersey. F. A. Soraci (June 5): A heavy infestation on one ornamental larch at Trenton. Tree about 10 years old and planted about 6 years ago.

Pennsylvania. C. C. Hill (June 6): Chermes sp. found on needles in considerable abundance on an ornamental larch tree at Carlisle.

LINDEN

LINDEN BORER (Saperda vestita Say)

New Jersey. S. W. Bromley (June 24): Extensive injury reported from Darlington.

THRIPS (Thysanoptera)

Vermont. H. L. Bailey (June 24): Thrips very abundant on basswood foliage at Colchester, Chittenden County, northwestern area, on June 9. Many leaves curling back from margins and turning black as result of damage to veins. High percentage of thrips had disappeared by June 15.

LINDEN WART GALL (Cecidomyia verrucicola O. S.)

Maryland. E. N. Cory (June 5): On linden in Baltimore.

MAPLE

MAPLE LEAF STEM BORER (Caulacampus acericaulis MacG.)

Massachusetts. A. I. Bourne (June 27): In sugar maple petioles from Worcester on June 9.

New York. S. W. Bromley (June 24): Received from Westchester County where it was reported as somewhat abundant.

New Jersey. T. H. Jones (May 25): Heavy damage on a maple at Morris Plains was indicated by fallen leaves and injured petioles.

AN APHID (Dropanaphis acerifoliae Thomas)

New York. M. D. Leonard (June 15): Several leaves of Acer rubrum with a few alates just starting young, observed on a single tree at Flushing on June 11 and 15.

COTTONY MAPLE SCALE (Fulvinaria vitis L.)

Indiana. J. J. Davis (June 21): More abundant than last year throughout northern part of the State and as far south as

Crawfordsville, in central Indiana. Most infestations in soft maple. One infestation showed great abundance on osage orange. Specimens received on June 19 were hatching.

Ohio. T. H. Parks (June 21): Quite abundant in several counties of the western area. Specimens received from Madison, Clark, Champaign, Mercer, Allen, and Defiance Counties.

FALSE COTTONY MAPLE SCALE (Pulvinaria acericola Walsh & Riley)

North Carolina. B. H. Wilford (June 9): Silver maple leaves heavily infested with female adults, egg masses, and newly hatched young brought in for identification. Reported that street and lawn trees in Lenoir are being badly attacked.

OAK

A TORTRICID (Argyrotoxa somipurpurana Kearf.)

New Jersey. T. H. Jones (May 24): Feeding on pin oak noted in an area near Morristown from which larvae were collected in 1938. Some of these larvae were reared and moths determined by A. Busck. (May 26): Report from Whippany about caterpillars on oaks. Investigations revealed the larvae, probably this species, common on approximately 2 acres of large oaks. Some trees showed noticeable feeding.

C. L. Griswold (May 26): Pin oak trees along a roadside at Florham Park for about $\frac{1}{2}$ mile showed heavy feeding by what was possibly this tortricid.

PUBESCENT OAK KERMES (Kermes pubescens Bogue)

Missouri. L. Haseman (June 24): Complaints and specimens of oak kermes received in the middle of June from southwestern, northwestern, and central parts of the State, indicating an unusual abundance.

Nebraska. M. H. Swenk (June 20): Bur oak kermes gall reported as damaging oak trees in Richardson County on June 10 and in Douglas County on June 12.

Oklahoma. F. A. Fenton (June 20): The oak scale, reported at Crescent, Logan County, Oklahoma City, Oklahoma County, and near Meeker, Lincoln County. Scales have checked to a very large extent terminal growth of oaks and are killing back the tips in many instances.

A GRACILARIID (Lithocolletis cincinnatiella Chambers)

North Carolina. B. H. Wilford (June 29): Several inquiries with

specimens of mined chostnut oak leaves were received from Gaston County during the latter part of June. Possibly the above species.

PINE

WHITE-PINE WEEVIL (Pissodes strobi Peck)

North Carolina. B. H. Wilford (June 28): Serious injury reported from Cataloochee section of the Great Smoky Mountains, National Park, where the white-pine weevil was infesting terminal shoots of white pine.

PITCH TWIG MOTH (Petrova comstockiana Fern.)

Massachusetts. W. B. Becker (June 27): Larvae in pitch pine twigs from South Dennis on May 8. (Det. by C. Heinrich.)

EUROPEAN PINE SHOOT MOTH (Rhyacionia buoliana Schiff.)

Michigan. R. Hutson (June 24): Numerous in Detroit and Monroe. Adults now on wing.

PANDORA MOTH (Coloradia pandora Blake)

Wyoming. J. A. Beal (June 20): Adults abundant in heavily defoliated area of ponderosa pine 2 miles long on Highway No. 16 near Osage.
- Eggs abundant. Young larvae just hatching.

PINE SAWFLIES (Neodiprion spp.)

New Jersey. C. L. Griswold (May): Over 100 acres of red, Scotch, Austrian, and western yellow pines planted on private estates in Somerset County heavily infested with N. sertifera Geoff. in the order named. These areas sprayed by autogiro during the latter half of May.

Maryland. E. N. Cory (June 14): LeConte's sawfly, N. lecontei Fitch, was infesting pine at Leonardtown.

Ohio. J. S. Houser (May 31): A Scotch pine planting near Clyde rather seriously damaged by N. sertifera. Austrian pine in the same planting injured to a lesser extent. Several other localities in northern and western parts of the State in which the sawfly is found, notably Toledo and Lima. Nearly full-grown larvae of a pine sawfly, N. dyari Rohw., were causing damage to a pine planting (Pinus echinata) in one of the State forests near Bainbridge.

Michigan. H. J. MacAloney (May 31): Presence of early instar larvae of the red-headed pine sawfly (N. lecontei Fitch) is reported from Manistee National Forest. Several colonies of larvae observed on jack pine during the last few days in May.

PINE BARK APHID (Pineus strobi Htg.)

New York. R. E. Horsey (June 19): Brought in for identification. On a white pine and reported as a cause of the older needles dropping prematurely. Fairly common at Rochester.

Minnesota. A. G. Ruggles and assistants (June 19): Reported from Sturgeon Lake on white pine on May 23. Moderately abundant.

PINE NEEDLE SCALE (Chionaspis pinifoliae Fitch)

Massachusetts. W. B. Becker (June 27): On pine from four localities in the State.

Ohio. E. W. Mendenhall (June 16): Abundant on evergreens, especially on hemlock trees in Worthington, Franklin County.

Minnesota. A. G. Ruggles and assistants (June 19): Moderately abundant on Norway spruce and Scotch pine at Minneapolis on May 2.

Nebraska. H. H. Swenk (June 20): Black Hills spruce in Redwillow County reported as infested on June 7.

SCOTCH PINE LECANIUM (Toumeyella numismaticum P. & McD.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported on May 30 as moderately abundant on Scotch pine.

SPRUCE

EUROPEAN SPRUCE SAWFLY (Diprion polytomum Htg.)

Maine. J. V. Schaffner, Jr. (June 24): Observations in two localities indicate a slight recession in the intensity of the outbreak in comparison to previous years.

New Hampshire. J. V. Schaffner, Jr. (June 24): Heavy feeding and defoliation can be expected on Beech Hill, Dublin.

Vermont. H. L. Bailey (June 24): First- and a few second-instar larvae at Wilmington, Windham County, southern part of the State, on June 7. Tests by F. E. Miller showed a very high percentage of emergence from overwintered cocoons. Not over 1 percent unpupated, overwintered larvae remained at that date. Some fourth- and fifth-instar larvae at the same point on June 22.

W. F. Sollers (June): The center of the epidemic outbreak in Marlboro has moved eastward toward Brattleboro, continuing the progressively eastward movement of past generations. Heavy feeding and frass noted, and severe defoliation over large areas can be expected. This outbreak is the worst in the northeastern United States.

A SAWFLY (Neodiprion sp.)

Wisconsin. H. J. MacAloney (May 29): First and second instars of a sawfly were found on spruce in the Chequamegon National Forest today. Larvae numerous enough to be easily found even in these early instars.

SPRUCE NEEDLE MINERS (Lepidoptera)

Connecticut. J. V. Schaffner, Jr. (June 6): On the evening of June 5 adults of Epinotia nanana Trcit. were abundant and hovering about ornamental blue spruce trees in Hamden, Conn., and on June 13 noted as abundant on blue spruce at Winchester, Mass.

Minnesota. A. G. Ruggles and assistants (June 19): Taniva albolineana Kearf. was moderately abundant on spruce at Minneapolis and at Mound on May 3 and 9, respectively.

A SPRUCE GALL MIDGE (Phytophaga sp.)

Wisconsin. H. J. MacAloney (May 29): Small galls of spruce gall midge at the bases of spruce leaves are common, but injury not severe on the Chequamegon National Forest. Adults were emerging on May 29.

SPRUCE RED SPIDER (Paratetranychus uniusguis Jacobi)

Pennsylvania. S. W. Bromley (June 24): Unusually abundant in the vicinity of Philadelphia.

Kentucky. W. A. Price (June 23): Unusually abundant in eastern and central Kentucky in May and early in June. It caused much damage to Norway spruces.

South Dakota. H. C. Severin (June 5): Very abundant and doing much damage to spruces in the eastern part of the State.

WILLOW

SPOTTED WILLOW LEAF BEETLE (Chrysomela lapponica L.)

Connecticut. M. P. Zappe (June 15): Many alders along streams at East Haven about 50-percent defoliated by this pest.

Ohio. T. H. Parks (June 21): Received almost daily with reports that it is defoliating willow.

Kentucky. W. A. Price (June 23): Caused some damage to willow trees in the vicinity of Independence.

Iowa. H. E. Jaques (June): This insect has nearly stripped the leaves from the willow trees in Skunk River Basin, Clarke County, mid-southern part of the State.

COTTONWOOD LEAF BEETLE (Chrysomela scripta F.)

Virginia. A. M. Woodside (June 17): Fussy willows near Staunton have been damaged by two beetles, one of which is believed to be the above species. The other may be the willow leaf beetle, Plagiodera versicolora Laich.

North Carolina. B. H. Wilford (June 9): Willow trees for the second successive year, along the Oconalufay River on the North Carolina side of the Great Sandy Mountains National Park badly damaged.

Ohio. J. S. Houser (June 2): Much more abundant in many localities in the State, and widespread in occurrence. It is damaging ornamental willows as well as trees along streams in woodlands.

POPLAR AND WILLOW BORER (Sternochotus lapathi L.)

Missouri. L. Haseman (June 24): Second-brood adults present in great numbers on willows and poplars in central and northern Missouri since the middle of June.

Oregon. W. D. Edwards (June 20): Mature larvae and pupae found in pupal tunnels in willow, poplar, and birch at Portland.

IMPORTED WILLOW LEAF BEETLE (Plagiodera versicolora Laich.)

Connecticut. J. V. Schaffner, Jr. (June 7): Larvae were abundant in several localities in New Haven County, particularly in Waterbury.

GALL GNAT (Oligotrophus salicifolius Felt)

Nebraska. M. H. Swenk (June 20): Specimen of willow twig infested with the willow blister gall was received from Furnas County on June 17.

AN APHID (Chaitophorus viminalis Monell)

New Jersey. M. D. Leonard (June 15): Abundant on the undersides of leaves of many watersprouts of good-sized trees (Salix sp.) at Ridgewood, but alates not numerous. Honeydew abundant.

I N S E C T S A F F E C T I N G G R E E N H O U S E
A N D O R N A M E N T A L P L A N T S

HAIRY CHINCH BUG (Blissus hirtus Montd.)

Connecticut. J. P. Johnson (June): Overwintered adults very numerous on the site of an old infestation, numbering as high as 50 to 70 per square foot. Warm days and drought conditions favorable for their development.

Pennsylvania. H. E. Hodgkiss (June 22): Large numbers of adults observed in Philadelphia County on May 24. No eggs found.

A SOD WEBWORM (Crambus trisectus Walk.)

South Dakota. H. C. Severin (June 5): Found to be very abundant at Hot Springs, where caterpillars have been doing much damage to lawns.

A BEETLE (Dichromana sp.)

Arizona. C. D. Lebert (June 23): Larvae numerous in lawns during early June, and severe damage to several lawns observed. Adults taken around lights during the middle of June.

A SPIDER MITE (Paratetranychus ilicis McG.)

District of Columbia. L. G. Baumhofer (May 16): Specimens of spider mites taken from heavily infested parts of an ornamental hemlock tree in Spring Valley on May 15. Conspicuous webbing on and between needles, and considerable discoloration of the foliage. (Det. by E. A. McGregor.)

ARBORVITAE

ARBORVITAE LEAF MINER (Argyresthia thuiella Pack.)

Maryland. E. N. Cory (June 15): Found at Pikesville attacking arborvitae.

EUROPEAN FRUIT LECANIUM (Lecanium corni Bouche)

Ohio. J. S. Houser (June 12): Infestation on arborvitae at Fort Jennings and Columbiana sufficiently heavy to cause damage. Eggs beginning to hatch.

BUTTERFLYBUSH

NEGRO BUG (Allocoris pulicaria Germ.)

Alabama. J. M. Robinson (June 19): Very abundant on butterflybush on June 12. (Det. by H. G. Barber.)

AZALEA

A WHITEFLY (Aleurodes azaleae B. & M.)

Maryland. F. F. Smith (April 28): Whitefly larvae, pupae, and emerging adults on leaves of azalea at Beltsville. (Det. by Louise M. Russell.)

AZALEA SCALE (Eriococcus azaleae Comst.)

New Jersey. E. G. Brewer (June 19): White scale on twig of azalea grown outdoors at Bloomfield. (Det. by H. Morrison.)

Ohio. J. S. Houser (June 21): Serious infestation of azalea bark louse on rhododendron at Cleveland required treatment. Young appearing today.

Mississippi. C. Lyle (June 24): A local infestation reported from Lauderdale County on June 22.

BOXWOOD

BOXWOOD LEAF MINER (Monarthropalpus buxi Laboulb.)

Massachusetts. A. I. Bourne (June 27): On boxwood at Edgartown on June 6.

Maryland. E. N. Cory (June 5): Boxwood midge on boxwood.

BURNINGBUSH

A LEAF BEETLE (Calligrapha rhoda Knab)

Michigan. R. Hutson (June 24): Taken on burningbush in Holt and Big Rapids on May 25.

CHRYSANTHEMUM

CHRYSANTHEMUM LACEBUG (Corythucha marmorata Uhl.)

Mississippi. C. Lyle (June 24): Specimens received from Bolivar County on May 20. Feeding on chrysanthemum.

A LEAF BEETLE (Nodonota clypealis Horn)

Alabama. J. M. Robinson (June 21): On chrysanthemum at Guntersville on June 17.

DAHLIA

A LEAF BEETLE (Chaetocnema denticulata Ill.)

Maryland. H. L. Dozier and L. W. Saylor (June 4): Taken on dahlias, injuring the foliage of young plants, at Cambridge. (Det. by H. S. Barber.)

DELPHINIUM

AN APHID (Aphis rociadae Oклl.)

Nebraska. M. H. Swenk (June 20): Delphinium plants in Butler County reported as attacked on May 26.

COLUMBINE

COLUMBINE LEAF MINER (Phytomyza minuscula Gour.)

New Jersey. M. D. Leonard (June 15): Most of the older leaves on a number of columbine plants at Ridgewood badly mined by larvae on May 29. Situation about the same now.

AN APHID (Pergandeidia trirhoda Walk.)

New Jersey. M. D. Leonard (June 15): Alates in small numbers only on a number of columbine plants examined on May 29 at Ridgewood. Just starting to produce young. On May 30, 1938, these aphids were common on the same plants and young and adult apterae were numerous. Today alates present in about same numbers, but apterae present in small colonies on a few leaves.

HOLLY

A SCALE INSECT (Asterolecanium sp.)

Virginia. H. G. Walker and L. D. Anderson (June 26): A scale was reported by the county agent as rather seriously injuring holly at Newport News. It has also been observed attacking holly at Norfolk on several different occasions.

HONEYSUCKLE

AN APHID (Rhopalosiphum melliferum Hottes)

New Jersey. M. D. Leonard (June 15): A small bush honeysuckle at Ridgewood has many of the flower clusters heavily infested. Aphids also on the undersides of many of the leaves. Alates numerous.

JUNIPER AND CEDAR

A LEAF BEETLE (Colaspis sp.)

Louisiana. P. K. Harrison (June 15): Observed doing moderate to severe damage to Cedrus deodara at Baton Rouge.

A THRIPS (Scolothrips sp.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported from Redwood Falls, as moderately abundant on cedar on May 13.

JUNIPER WEBWORM (Dichomeris marginellus F.)

Ohio. E. W. Mendenhall (June 15): Numerous on juniper trees in a nursery at Westerville, Franklin County.

Michigan. R. Hutson (June 24): Reported from Kalamazoo, Detroit, Monroe, and East Lansing.

BOXELDER BUG (Leptocoris trivittatus Say)

Nebraska. D. B. Whelan (June 20): On May 31 eggs in red cedar. More numerous than for several years past. One-half to nearly full grown by mid-June.

AN APHID (Cinara sabinæ Gill.)

Connecticut. S. W. Bromley (June 24): Red cedar aphid received from New Haven, where twigs are dying.

JUNIPER SCALE (Diaspis caruoli Targ.)

Michigan. R. Hutson (June 24): Reported on juniper from Fremont, Saranac, East Lansing, and South Haven.

Oklahoma. F. A. Fenton (June 20): Reported on juniper at Shawnee, Pottawatomie County.

Oregon. W. D. Edwards (June 20): Attacking arborvitæ, juniper, and cypress in the Willamette Valley. Crawling young mostly settled on June 20.

LILAC

LILAC BORER (Podosesia syringæ Harr.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported from Ivanhoe as moderately abundant on lilac and oak on May 2.

LILY

A NOCTUID (Xanthopastis timais Cram.)

Mississippi. C. Lyle (June 24): Larvae received since June 12 from Carroll, Jefferson Davis, Neshoba, and Sunflower Counties on lilies and similar plants.

PRIVET

FLORIDA RED SCALE (Chrysomphalus aonidum L.)

Florida. H. Spencer (June 12): Leaves of privet heavily infested with scales from Fort Pierce. (Det. by H. Morrison.)

RHODODENDRON

RHODODENDRON LACEBUG (Stephanitis rhododendri Horv.)

New York. R. E. Horsey (June 20): A few lacebugs on rhododendron at Rochester.

New Jersey. M. D. Leonard (June 15): Sufficiently abundant on several large rhododendron plants at Ridgewood to necessitate control measures.

Maryland. E. N. Cory (June 16): Attacking rhododendron at Baltimore.

HOWARD'S SCALE (Aspidiotus howardi O'kell.)

New York. S. W. Bromley (June 24): Found infesting rhododendron foliage on Long Island. Infestation apparently not especially injurious.

ROSE

ROSE SAWFLY (Caliroa aethiops F.)

Missouri. A. C. Burrill (June 6): Occasional rose bushes were badly damaged in Cole, Osage, Gasconade, Franklin, Maries, and Phelps Counties. Hardy memorial roses practically untouched so that it is evident that the epidemic is limited to the older species or varieties of roses. This inspection covers an area about 75 by 65 miles and indicates a general epidemic.

Nebraska. M. H. Swenk (June 20): Specimens of rose leaves and twigs showing injury by the European rose slug received from Thayer, Saline, and Frontier Counties on June 5, 9, and 17, respectively.

ROSE CURCULIO (Rhynchites bicolor F.)

Nebraska. M. H. Swenk (June 20): Found attacking roses in Keyapaha County.

Utah. G. F. Knowlton (May 30): Rose snout beetles infesting and injuring buds of cultivated, as well as wild roses, at Logan and Hyrum.
(June 15): Damaging roses at Salt Lake City.

ROSE APHID (Macrosiphum rosae L.)

New Jersey. M. D. Leonard (June 15): Not abundant at Ridgewood on May 29 on a number of rose bushes and vines examined. Today almost no aphids present on these plants.

New York. M. D. Leonard (June 20): On June 5, a number of rose bushes in Jackson Heights moderately infested. Situation about the same now to even a less infestation.

Nebraska. D. B. Whelan (June 20): Quite common in rose gardens at Lincoln from late in May until the middle of June.

A GALL WASP (Rhodites dichlocerus Harr.)

Nebraska. M. H. Swenk (June 20): Report of the long nose gall received from Washington County on May,

SPIREA

GREEN CITRUS APHID (Aphis spiraeicola Patch)

New York. M. D. Leonard (June 20): A number of shrubs of spirea at Jackson Heights only moderately infested.

New Jersey. M. D. Leonard (June 15): On May 29 many terminal shoots of several shrubs at Ridgewood were well infested, but this aphid was by no means really abundant. Today it seemed it is less numerous on the same shrubs.

Tennessee. G. M. Bentley (June 20): Infestation of spiraea aphid heavier than usual in the localities of Smithville, De Kalb County, and Nashville, Davidson County on May 20 and 22.

WATERLILIES

A SNOUT BEETLE (Bagous americanus Lec.)

Pennsylvania. J. O. Pepper (June 8): Snout beetle injuring blooms of waterlilies at State College. (Det. by L. L. Buchanan.)

WISTERIA

POTATO LEAFHOPPER (Empoasca fabae Harr.)

Virginia. F. W. Poos (June 5): Severe burning of tips by adults and nymphs on pink wisteria, Wisteria multijuga rosca, whereas on W. sinensis, nearby, both nymphs and adults occurred but not abundantly enough to cause burning of leaves. The same observation was made on these plants in August 1938. (Det. by Nancy H. Wheeler.)

I N S E C T S A T T A C K I N G M A N A N D
D O M E S T I C A N I M A L S

MAN

EYE GNATS (Hippelates spp.)

Georgia. A. L. Brody and E. E. Rogers (June 21): Tremendous increase in numbers at Valdosta during the last month. Working outdoors exceedingly annoying owing to the clusters of gnats around face and eyes.

FLIES (Diptera)

Georgia. T. L. Bissell (June 13): On May 30 at Williamson, central Georgia, eyes of three people infested with some minute maggots. About 15 maggots removed from their eyes. Only one specimen saved, which was a dipterous larva, but no closer determination possible.

AMERICAN DOG TICK (Dermacentor variabilis Say)

Massachusetts. C. N. Smith and F. C. Bishopp (June): Adults present in great numbers on the island of Marthas Vineyard and on the adjacent mainland of Cape Cod. A few cases of spotted fever again on Cape Cod, and a few cases of tick paralysis in dogs. Ticks reported as much worse than ever before at Centerville. At Plymouth, near the northern limit of this species in Massachusetts, reported as abundant this year. Said to be unusually abundant in the vicinity of Duxbury and reported as far north as Scituate. Reports from that area indicate a few ticks present 3 years ago, worse last year, and showing a greater increase this year.

Maryland. E. N. Cory (June 24): Observed on lawns and at resorts in Garrett, Allegany, and Baltimore Counties.

Virginia. F. C. Bishopp (June): Two males submitted from Albemarle County, which adds another county to the authentic records of distribution in Virginia. (Det. by Helen L. Trembley.)

Georgia. T. L. Bissell (June 13): Very abundant during May.

J. Krafka (June 19): At Augusta tick removed from the head of a child in whom it had produced so-called tick paralysis. (Det. by H. E. Ewing.)

E. E. Rogers (June 21): Both males and engorging females found on animals at Valdosta in small numbers during the month. Four ticks taken from a bear killed near the Okefenokee Swamp.

ROCKY MOUNTAIN SPOTTED FEVER TICK (Dermacentor andersoni Stiles)

Nebraska. H. O. Schroeder (May): Ticks collected from various hosts in Fort Robinson included D. andersoni and D. variabilis. (Det. by F. C. Bishopp.)

Utah. G. F. Knowlton (June 10): Several Rocky Mountain spotted fever ticks collected during June, but less frequently than in May.

TROPICAL RAT MITE (Liponyssus bacoti Hirst)

Virginia. M. G. Perrow (June 15): Found in house at Lynchburg on June 5, where it was attacking a baby. (Det. by H. E. Ewing.)

CATTLE

SCREWORM (Cochliomyia americana C. & P.)

Georgia. E. E. Rogers (June 21): Since May 29, 23 infestations found on animals at Valdosta.

A. L. Brody (June 14): Natural infestation in two dogs reported on June 11 and 14 at Valdosta.

Texas. R. Melvin (May 30): Population building up rapidly at Menard.

D. C. Parman (May): Flies apparently decreasing in the southern Texas Gulf coast region about May 15. In the area south-east of Del Rio flies increased from May 16 to 31. In the vicinity of Uvalde no change in population apparent between May 16 and 31.

HORN FLY (Haematobia irritans L.)

Georgia. A. L. Brody and E. E. Rogers (June 21): During the first week of June at Valdosta animals infested with about two to three hundred. At present the number per animal has decreased to about 100.

Texas. W. G. Bruce (May): Infestations of cattle in the vicinity of Fort Worth observed in excess of 3,500 flies per animal.

NORTHERN CATTLE GRUB (Hypoderma bovis Deg.)

Minnesota. A. G. Ruggles and assistants (June 19): Two larvae found in cows at Finlayson on May 9. (Det. by H. T. Peters.)

LONG-NOSED CATTLE LOUSE (Linognathus vituli L.)

Nebraska. M. H. Swenk (June 20): Found infesting calves in Garden County on June 6.

GULF COAST TICK (Amblyomma maculatum Koch)

Georgia. E. E. Rogers (June 21): Increasing at Valdosta during the last month. Most individuals collected were males, and only a few females observed. One taken from a bear near Okefenokee Swamp.

HORSE

STABLEFLY (Stomoxys calcitrans L.)

Georgia. E. E. Rogers (June 21): Increasing at Valdosta during the last month.

Nebraska. M. H. Swenk (June 20): Abundance reported from Chase, Butler, and Jefferson Counties on June 10, 14, and 16, respectively.

Kansas. H. R. Bryson (June 24): Causing considerable annoyance to livestock in pastures and barns.

HORSE FLIES (Tabanus spp.)

Virginia. F. C. Bishopp (June): Two or more species reported as very abundant and annoying livestock at Culpeper; much worse than in the last few years.

NOSE BOTFLY (Gasterophilus haemorrhoidalis L.)

Nebraska. H. O. Schroeder (May 30): Adults active at Fort Robinson on May 15 and quite common by May 21. So numerous by May 30 that herds practically stopped grazing when flies were most active. Evidence of adult activity seen among farm horses through the western two-thirds of the State. Adult activity apparently started about 2 weeks earlier than last year.

DEER FLIES (Chrysops spp.)

Massachusetts. C. N. Smith and F. C. Bishopp (June): Causing annoyance to horses on Marthas Vineyard and on Cape Cod. At Greenbush found to be very abundant and annoying.

Maryland. Gertrude Myers (June 5): C. niger Macq. collected while biting man and horses at Rockville on June 4. (Det. by A. Stone.)

Utah. G. F. Knowlton (May 30): C. discalis Will. and C. fulvastra O. S. extremely abundant and annoying south of Penrose and on the Utah public shooting grounds. Man attacked vigorously in marshy areas. (June 5): C. discalis found to be annoying man and horses in fields west of Layton.

BLACK GNATS (Simuliidae)

Nebraska. H. O. Schroeder (May 16): About 20 Leptoconops kerteszi americanus Carter collected at Sutherland, 100 more swarming around. Platte River bed about 100 yards distant. Also irrigation ditches in the vicinity. Reported as bad every spring. (Det. by A. Stone.) (May 30): On May 22 about 15 Simulium bivittatum Mall. collected from horses grazing near a small irrigation canal at Fort Robinson. Canal found heavily infested with immature stages. All horses in pastures adjoining this canal had wounds caused by the pest.

POULTRY

CHICKEN MITE (Dermanyssus gallinae Deg.)

Nebraska. M. H. Swenk (June 20): Request for control information received from Douglas County on May 31.

BEAVER

BEAVER BEETLE (Platypsylla castoris Rits.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported on beaver from the eastern part of Minnesota in May. (Det. by C. E. Mickel.)

HOUSEHOLD AND STORED-PRODUCTS INSECTS

A TERMITE (Reticulitermes flavipes Koll.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported from Luverne on May 5. Winged adults abundant on May 5. (Det. by Emerson and Snyder.)

ANTS (Formicidae)

Maryland. H. L. Dozier and L. W. Saylor (June 4): Tetramorium caespitum L. and Monomorium minimum Buckl. taken on dahlia at Cambridge. Injuring foliage of young plants. Ants were feeding along the midrib starting near the base of the leaf blade.

Florida. G. B. Merrill (June 24): Wasmannia auropunctata Roger taken by State Plant Board inspectors at Royal Palm State Park, February 5. (Det. by M. R. Smith.)

Mississippi. C. Lyle (June 24): Fire ants, Solenopsis xyloni McCook, unusually numerous in Oktibbeha County. Reports of infested gardens and flower beds received from Bolivar, Carroll, Chickasaw, Harrison, Holmes, Leflore, Pearl River, and Sunflower Counties. Reports of injury received from the southeastern part of the State. The Argentine ant (Iridomyrmex humilis Mayr) was reported as a pest in

some houses in Holmes, Monroe, Montgomery, Pike, and Yazoo Counties, as well as in southwestern part of the State, during the last week in May and the first two weeks in June. Specimens of Crematogaster lineolata Say reported as being numerous in a house and on trees and fences in Tallahatchie County. Specimens received on May 22.

Oklahoma. F. A. Fenton (June 20): The red harvester ant (Pogonomyrmex barbatus F. Smith) reported from Clinton, Custer County.

L. B. Ray (June 12): Ants, Solenopsis xyloni, were sent in by Ray from Edmond, June 5. Infesting gardens and houses.

Texas. R. K. Fletcher (June 22): Red harvester ant reported in Castro County on May 22, and in Bexar County on June 16.

Nebraska. M. H. Swenk (June 20): Western harvester ant (P. occidentalis Cress.) reported as making disfiguring hills in a yard in Hitchcock County on May 25. Specimens of the basement ant, Lasius interjectus Mayr, were sent from Douglas County on June 13. Found under cement walk, as well as along the wall of cement blocks in the basement of a house. On May 23 common black garden ant, Formica fusca L., was reported as very abundant in a Custer County garden, especially among the strawberry roots.

Arizona. E. R. Tinkham (March 30): A small black ant about $\frac{1}{2}$ inch long, in order to get at the honey glands of peach on the inside walls of the receptacle, snipped off about half the anthers at their bases and then removed the pistil and ovary completely. J. H. Hale variety with small flowers suffered greatest damage. Control measures saved the greater part of the peach crop from being destroyed. Larger varieties such as Elberta and Mayflower with large blossoms and heavier ovaries and pistils, were not severely injured.

WHARF BORER (Nacerda melanura L.)

Massachusetts. A. I. Bourne (June 24): Specimens of the wharf borer were collected in timber in the cellar of a building in Boston.

DRUG STORE WEEVIL (Stegobium paniceum L.)

New York. R. E. Horsey (June): A number of the weevils found in herbarium specimens in a herbarium at Rochester. (Det. by P. A. Readio, of Ithaca.) Larvae believed to be from the same, did considerable damage to dried specimens of trees and shrubs. As many as 15 larvae found in one flower cluster. They also ate cover papers, mounting cards, young leaves and stems, as well as dried fruits. Noted for the first time last winter, 1938-39.

A FLOUR BEETLE (Tribolium madens Charp.)

Nebraska. M. H. Swenk (June 20): A new stored-grain pest for this State was noted when specimens were sent in from Kearney County on May 26 with the statement that they were damaging stored wheat.

A CERAMBYCID (Xylotrechus sagittatus Germ.)

Massachusetts. W. B. Becker (June 27): In pine box lumber logged and made into boxes in central part of the State. (Det. by A. G. Boving.) Similar larvae reported as having bored through paper which was packed inside other boxes made from this lumber.

A CLOTHES MOTH (Tineola walsinghami Busck)

Florida. J. R. Watson (June 21): Sent in from various parts of the State.

CAMEL CRICKETS (Tettigoniidae)

Nebraska. M. H. Swenk (June 20): Crickets, chiefly Ceuthophilus pallidus Thos. and Udeopsylla robusta Hald. have again developed in super-normal abundance in some sections of the State. In Lancaster County the former was found abundantly infesting basements of houses at Lincoln.

A WOOD-ROACH (Parcoblatta pennsylvanica Deg.)

Minnesota. A. G. Ruggles and assistants (June 19): Reported from Anoka on May 10 as bothering people in a house on the river. (Det. by H. E. Shepard.)

